UNNECESSARY LOSSES:

COSTS TO AMERICANS OF THE LACK OF FAMILY AND MEDICAL LEAVE

Roberta M. Spalter-Roth
Heidi I. Hartmann

INSTITUTE for WOMEN'S
• POLICY RESEARCH •

About This Report

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The Institute is national and international in scope and is committed to addressing the full spectrum of issues impacting women and families with sensitivity to the complexities engendered by race, ethnicity, and class.

IWPR's work is supported by foundation grants, government grants and contracts, donations from individuals, and contributions from organizations. Members and affiliates of IWPR's Information Network receive reports and information on a regular basis. IWPR is a 501(c)(3) tax-exempt organization.

**Affiliation for identification only*

Preface

Unneccessary Losses is the full report of the first major project undertaken by the Institute for Women's Policy Research. The study was begun in the summer of 1987 shortly after the Institute was founded. As such it gives me great pleasure to present it to you now in its entirety. This report contains dollar estimates of the costs to workers and society of the lack of parental and medical leave. Much of the report's contents is released here for the first time: the costs of lack of medical leave and estimates of the differential effects on women and men and blacks and whites.

In Unnecessary Losses, as in our other work, IWPR presents research from a woman-centered point-of-view. By calculating the costs to workers of not having job-protected leave for child birth, care for newborn children and elderly parents, or illness, IWPR's study balances the public discussion of enacting a new national family and medical leave policy. Much has been heard of the costs businesses would incur to comply with a new federal law that establishes a worker's right to reasonable leave for illness and family care. Prior to IWPR's research, however, the benefits to Americans of eliminating the losses that now occur to workers—losses that stem from lost earnings and lost jobs—had not been quantified.

Some of the findings of this research, particularly those on parental leave, have been disseminated previously in a variety of formats: testimony in the U.S. Senate; presentations at scholarly conferences; briefings for interested advocates and policy makers; press conferences and coverage by newspapers,

magazines, radio and television; and publication of several shorter versions. In addition, during the Spring of 1989, IWPR worked with the Women's Legal Defense Fund and the Communications Consortium to produce state-level estimates of workers' losses from not having leave and to disseminate them to a broad audience of advocates and policy makers.

All of this activity demonstrates IWPR's commitment to making research—high quality research that uses both traditional and innovative social science methodologies—accessible and bringing it to bear on the policy process. It also illustrates our collaboration with the users of research, both policy makers and advocates, in identifying research questions and contributing to public debate.

The debate on appropriate ways of meeting the needs of daily life, in both the home and work spheres, will go on for some time. IWPR expects to continue generating policy relevant research in these and other areas. We invite you to join with us in helping to build the intellectual capital that supports women's agendas and progressive social change.

Teresa Odendahl
Chair, Board of Directors
Institute for Women's Policy Research

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Summary

This report estimates the current economic costs of the lack of a national family and medical leave policy to working women and men, and to taxpayers, in terms of added earnings losses and public income assistance. These costs occur because a substantial number of workers currently do not have the right to return to their jobs after an absence for childbirth, illness, or eldercare. The proposed Family and Medical Leave Act (FMLA) would entitle employees to take a reasonable amount of short-term family or medical leave without risk of termination of employment.

This report concludes that the costs to workers and taxpayers of the current lack of national policy are many times greater than the costs to business of having a national policy. Having a national leave policy would reduce the costs to workers and society of the socially necessary tasks of childbirth, child care and eldercare, or of illness, because having the right to return to their jobs would reduce unemployment and earnings losses for workers who must be absent for these reasons.

The costs borne by workers because of childbirth, illness and dependent care are staggering, amounting to over $100 billion annually.

Lost Earnings from Childbirth

American women workers incur large earnings losses to have the next generation of workers and citizens:

- Earnings foregone in the year of the birth (or

adoption) and in the two subsequent years amount to an estimated $14,400 (in 1986 dollars) per woman.

- The total earnings loss to all women who have babies is estimated at $31 billion annually.

Women Who Return to Work After Childbirth Also Lose Earnings

While it is obvious that women who do not return to work after the birth of a child lose substantial earnings after childbirth, it is less obvious that earnings losses would be large even for women who do return to work. Yet:

- Over forty percent of the total earnings loss from childbirth of $31 billion is incurred by women who return to work within two years after the birth of the child. The aggregate loss in earnings for these women is estimated at $12.9 billion dollars annually.
- Lost earnings per woman, for those returning to work, amount to $8,460 per woman: $2,632 in the birth year, $2,973 a year later, and $2,855 two years later.
- Over 70 percent of employed women having babies return to work within two years, an estimated total of 1,524,000 women workers annually.
- Women targetted by the proposed Family and Medical Leave Act—those who have babies and return to work shortly thereafter—*are* currently sustaining huge earnings losses.

Beneficiaries of Leave Act Have Low Incomes

For childbirth, the principal beneficiaries of the FMLA would be lower-earning women, those typically most in need of federal labor standards:

- New mothers who reported having no family leave other than vacation were in significantly worse economic circumstances than women reporting some form of leave. The differential between those with and without leave amounted to over $5,000 in annual earnings or $2.65 per hour in the pre-birth year.
- The difference in annual earnings between women with leave and those without widened in the birth year and and the two years thereafter. Across all three years, those without leave lost $1088 more in annual earnings than those with leave.
- In total, those with leave lost $8,191 or 51 percent of their pre-birth year earnings, while those without leave lost $9,279 or 86 percent of their pre-birth year earnings. The proportion of earnings lost was much greater for those without leave because their earnings were lower to begin with.
- The total annual earnings losses for women without leave who gave birth are $607 million greater than for women with leave. This figure represents only the additional earnings lost by women with no leave over and above those losses sustained by women with leave.

Lost Earnings from Illness

The losses in earnings to employed women and men because of illness are enormous. The earnings losses persist and grow in the two years following absence due to illness:

- Total earnings losses per worker experiencing illness are estimated at $4796 over a three-year period.
- The earnings losses resulted from lower hourly wages, fewer hours worked, more hours of unemployment, and more hours out of the labor force. In the aggregate, the earnings loss to all workers who experience above-average illness is estimated at $100 billion annually.

Cost of Lack of Leave for Illness Estimated By Lost Earnings from Added Unemployment

Workers with above-average absence due to illness experience higher unemployment than those with less absence.

- Women with illness had 6 weeks of unemployment in the two years following the absence com-

pared with 4 weeks for well women. Ill men had 8 weeks of unemployment compared with 5 weeks for well men.

- The estimated earnings losses due only to increased unemployment following an illness episode amount to $583 per worker, or $12.2 billion aggregated to all workers.
- Illness-related earnings losses associated with increased unemployment would be mitigated by legislation ensuring workers the right to re-employment after illness.

Black Workers Suffer Added Unemployment After Illness Compared to White Workers With Illness

Black workers who experienced absence due to illness suffered greater earnings losses than ill white workers, primarily because of even greater unemployment and longer time out of the labor force.

- Black women had lower earnings than white women in the year prior to the illness, due to lower hourly wage rates and more hours of unemployment.
- By the second year after the illness, black women workers had an additional 6.5 weeks of unemployment and 5 weeks out of the labor force compared to white women who also experienced above-average absence due to illness. Over the three-year period observed, ill black women lost nearly 14 weeks more work than did white women with illness.
- For black men with illness, the disparity in earnings compared to ill white men—which amounted to $9000 in the pre-illness year—widened to $12,500 two years later.
- The difference in hours lost between black men and white men with illness episodes increased following the absence year and by the second year amounted to 503 hours (12.6 weeks). Over the three-year period observed, ill black men lost more than 22 weeks more work than did white men with illness.

Costs to Workers, Taxpayers, and Business

In addition to the earnings losses that are sustained by workers because of childbirth and illness and lack of job-protected leave for these events, absence from work for these reasons involves substantial outlays by taxpayers, including employers, for unemployment compensation, welfare payments, Supplemental Security Income, and so forth. A portion of these costs would also be eliminated by the enactment of a national family and medical leave policy. The following table summarizes some of the costs of lack of leave to workers and taxpayers from IWPR's study and juxtaposes them to GAO's projections of costs to business if the FMLA were enacted:

Annual Costs of Childbirth, Illness, and Job-protected Leave

	IWPR Estimates		GAO Estimates
Costs of:	Current Earnings Lost to Workers	Current Costs to Taxpayers	Projected Business Costs (FMLA, Senate Version, if enacted)
Childbirth or Adoption	$ 31 billion	$ 1.2 billion	not available
Lack of Parental Leave	607 million	108 million	$117 million
Absence for Illness	100 billion	7.5 billion	not available
Lack of Temporary Medical Leave	12 billion	4.3 billion	66 million

Despite widespread agreement that employment policies should be responsive to the needs of working families, Congress is currently engaged in debate about a national leave policy that would require minimum protections against job loss because of family and medical needs. The proposed policy would provide protection against job loss if a worker takes a short, unpaid leave for the birth or adoption of a child, the care of a seriously ill child or parent, or the worker's own illness. Although some businesses object to the potential cost of a national policy, the cost to workers, and to society at large, of not having such a policy is often overlooked.

In the midst of the debate over the hypothetical costs of enacting a national parental and medical leave policy, this study estimates the current economic costs of the lack of a national policy. It estimates the costs to working men and women, the disproportionate share of which are borne by working women. It also estimates the costs to taxpayers in terms of increased assistance payments, and describes the costs to society of the productivity lost because workers lack the right to return to their jobs after childbirth, illness, or eldercare. The study concludes that these costs, taken together, appear to be greater than the costs to business of having a national policy. Proposed legislation, such as the Family and Medical Leave Act, can be seen as a minimum labor standard that would more equitably redistribute the existing costs of childbirth, illness, and eldercare.

The Context

The Origins of Family and Medical Leave Policy

The proposed Family and Medical Leave Act, which guarantees job-protected leave for dependent care and one's own illness, is one of a series of proposed labor standards that is emerging within the social and political context of shifting gender relations, the feminization of the labor force, and the resulting decline in the availability of unpaid, round-the-clock family caregivers. As with earlier legislation designed to define and uphold labor standards, including laws on unemployment insurance, child labor, social security, and the minimum wage, the proposed legislation establishes a minimum standard because voluntary corrective actions on the part of employers are viewed as inadequate. Like other federal labor standards, it attempts to address a societal problem by requiring private employers to provide certain rights and benefits. Like other federal labor standards, it is designed not only to ameliorate a social problem, but also to minimize the competitive pressure placed on employers who institute the labor standard by those who do not.

During the last two decades, the number and proportion of women who remain in the labor force throughout their childbearing years has grown sub-

stantially. Currently, nearly half of all mothers with children under age one are in the labor force. Approximately 56 percent of working women who bore their first child between 1981 and 1984 (O'Connell, forthcoming) and 64 percent of working women who bore children in 1985 returned to work within the year (Gainer, 1987:9). Increasing numbers of women maintain their families on their own. Thus, the sentimentalized vision of the full-time, stay-at-home mother has grown increasingly misleading since it ignores the reality of more and more women's lives. Although most women are no longer full-time caregivers, women still do the major share of caring for new-born babies, sick children, husbands, and elderly parents or in-laws. As growing numbers of women combine work and dependent care-giving, the demand for new labor standards that allow women to balance these jobs increases.

But even when a large segment of the population experiences the same needs, public policy is not necessarily responsive, especially when the needy group is less politically powerful. Many women, especially women of color and working class women, have always combined some form of wage work with dependent care without the benefit of public policies designed to help them manage both activities. They have borne the brunt of the costs of combining these activities not only in the extra hours of cleaning, laundry, shopping, and scheduling, but also in lower wages, greater unemployment, reduced occupational mobility, and, ultimately, lower retirement income.

Historically, the most common parental leave policy in the United States was for firms to terminate a woman's paid employment and to let her bear the costs of subsequent unemployment and of finding a new job. The first labor standards aimed at women were designed in the Progressive Era to ameliorate deplorable conditions for women workers. Called protective labor laws, their manifest purpose was the protection of women's reproductive capacities. This state-level legislation excluded women from 'dangerous' jobs and restricted women's hours of paid employment. In response to these limits on their ability to earn a living, many women struggled for the right to work nights and overtime, to continue to work when pregnant, and to return to work after childbirth.

The Fair Labor Standards Act (FLSA) of 1938 covered matters such as child labor, minimum wages, night work, rest breaks, overtime, and safety. The Act, which excluded agricultural and domestic workers, as well as most service workers, assumed a male industrial worker as the norm by default (Palmer, 1988). Enacted during a period of economic crisis when firing a woman because her husband had a job was legal, the FLSA was not concerned with the needs of women workers to accommodate job and family responsibilities.

A federal policy on women's right to work and to return to the job after childbirth was not proposed by a governmental agency until World War II. Because the war effort was dependent on women's labor, the Women's Bureau of the Department of Labor recommended a six-week prenatal period and a two-month postnatal leave over the usual policy of dismissing pregnant women workers. It also called for guarantees of reinstatement and maintenance of seniority rights. But the suggestions never became public policy. After World War II, the Women's Bureau focused on the problems of married women workers. At a 1948 conference, "The American Woman, Her Changing Role," the Bureau asserted a need for federally-mandated maternity leave but was again unsuccessful in persuading lawmakers (Boris and Honey, 1988).

Fifteen years later, maternity leave policy was again recommended, this time by the 1963 President's Commission on the Status of Women. The Commission asked for an exploration of how best to provide paid maternity leave for at least six months without loss of reemployment or seniority rights. Although the Commission believed child care to be an essentially female activity because of women's biological role as child bearers, much as the Women's Bureau had, the Commission's proposal was on the

cutting edge in viewing women as permanent, not temporary or secondary, members of the labor force. However, the Commission's proposal met the same fate as those of the Women's Bureau and did not result in federal policy (Peterson, 1983).

As a result of the civil rights movement, Congress passed major civil rights legislation in 1964. Title VII of the Civil Rights Act pertained to virtually all terms and conditions of employment and prohibited discrimination based on race, color, religion, national origin, or sex. Almost immediately, women all over the United States began to file claims of sex discrimination with the Equal Employment Opportunity Commission, the agency charged with enforcing Title VII. In 1976, the U.S. Supreme Court ruled in *Gilbert v. General Electric* that discrimination on the basis of pregnancy did not constitute sex discrimination. Seeking to rectify this interpretation, Congress passed the Pregnancy Discrimination Act of 1978, as an amendment to Title VII. It prohibits discrimmination on account of pregnancy in a variety of employment conditions, including leave. The Act became law more than a decade after the passage of the Civil Rights Act of 1964 and a decade after the beginning of an organized women's liberation movement–a movement that signaled a wholesale questioning of traditional gender roles (Gelb and Palley, 1987).

In its liberal form, the organized women's movement posited equality between the sexes as its goal and struggled to incorporate a model of equal rights or equal treatment between men and women into public policies. To this end, the Pregnancy Discrimination Act of 1978 stipulates: "Women affected by pregnancy, childbirth, or related medical conditions shall be treated the same for all employment-related purposes ... as other persons not so affected but similar in their ability to work." In other words, if an employer provides short-term disability leave or health insurance or other benefits for any medical conditions, the employer must do so for pregnancy and child birth. If an employer provides no short-term disability leave or insurance or other benefits, pregnancy need not be covered. The Pregnancy Discrimination Act, while requiring equal treatment, leaves disability policy to the benevolence of individual employers. Moreover, the Act does not require employers to allow workers time off to *care* for newborn children, sick children, spouses and elderly relatives, even if they provide disability leave for a worker's own medical conditions.

The result of these historical developments is a conglomeration of private policies and state legislation with differential rules for availability, length of absence, maintenance of benefits, and rights to reinstatement. This lack of a coordinated national policy, our research shows, results in unnecessary losses to workers, businesses, taxpayers, and society in general.

Evaluating Policy – The Lack of Research

No systematic data collection program exists to provide information on the availability, usage, costs, and benefits of existing leave policies. As a result, the studies that have been done in these areas provide sketchy and often confusing findings. Some of the most recent studies of maternity and parental leave are summarized in Table 1. The frequently cited 1986 Catalyst study, based on returned questionnaires from 26 percent of the 1500 largest U.S. corporations, reports almost total coverage with 95 percent of employees entitled to some form of paid or unpaid leave and almost 90 percent entitled to some form of job reinstatement. In contrast, the Chamber of Commerce's 1985 survey of 1,000 firms indicates that fewer than 20 percent of the 700 firms that responded to the survey had a formal parental or maternity leave plan. Most relied on some combination of sick and vacation leave or the discretion of

Table 1

National Studies or Data on Current (1984 or More Recent) Pregnancy/Maternal Leave Policies

Study Name or Data Source	Availability of Some Form of Maternity Leave			Job Reinstatement	Usage of Leave		Costs/ Benefits of Leave	
	Formal Plan Seems to Exist	Some Combination of Sick and Vacation Leave	No Leave or Discretion of Supervisor	Some Reinstatement Policy Exists	Formal Plan Paid	Formal Plan Unpaid	Formal Plan Paid	Formal Plan Unpaid
U.S Chamber of Commerce 1985 Employee Benefits Survey Mail out/mail back survey of 1,000 firms generated from Dunn & Bradstreet,U.S. Enterprise, and Establishment Microdata File. Response rate = 70% N = 700 firms	19% Paid UnPaid 25% 75% For paid leave, do benefits continue? Yes No 85% 15% Eligibility Requirements? NA	31%	50%	Approximately 2/3 of firms providing some sort of leave allow workers to accummulate seniority or guarantee workers same or similar job.	NA	NA	NA	NA
Catalyst Report on a National Study of Parental Leaves, 1986 Mail out/mail back survey of 1,462 of the 1,500 largest U.S. corporations and in-depth interviews with 51 company representatives. Response rate = 26% N = 384	95% Paid UnPaid (full) (or partial) 39% 61% For paid leave, do benefits continue? Yes No 90% 10% Eligibility Requirements? Yes No 51% 49%	NA	NA	87%	More than 3/4 of women in surveyed companies took 12 weeks or less.		NA	NA
American Society of Personnel Administrators, 1987 Membership survey. Voluntary responses to survey questionnaire in society newsletter. Response rate = ? N = 357 (claim 35,000 members)	All those answering appeared to have some form of disability policy—52% at full or partial pay. For those women wishing to take maternity leave beyond disability: 65 % seem to have a formal policy Paid UnPaid 5% 95%	For those women wishing to take maternity leave beyond disability: 18% have some kind of maternity leave beyond disability	For those women wishing to take maternity leave beyond disability: 15% have no maternity leave beyond disability	49%	Bi-model usuage: in 34% of firms offering leave, less than 25% of eligible women take it, while in another 43%, more than 75% of eligible women take it.		NA	NA
NCJW Center For the Child Report on a National Study Of Parental Leavee, 1987 Mail out/mail to diverse sampling of employers in large and small businesses and government agencies. Response Rate = ? N = 3841 firms	61% Paid Unpaid 38% 62% For paid leave, do benefits continue? Yes No 44% 46% Eligibility requirements? NA	NA	NA	NA	NA	NA	NA	NA

(Continued)

Table 1 —Continued

National Studies or Data on Current (1984 or More Recent) Pregnancy/Maternal Leave Policies

Study Name or Data Source	Availability of Some Form of Maternity Leave			Job Reinstatement	Usage of Leave		Costs/ Benefits of Leave	
	Some Formal Plan Seems to Exist	Combination of Sick and Vacation Leave	No Leave or Discretion of Supervisor	Some Reinstatement Policy Exists	Formal Plan Paid	Formal Plan Unpaid	Formal Plan Paid	Formal Plan Unpaid
U.S. Bureau of Labor Statistics Employee Benefits in Medium & Large Firms, 1989 A nationally representative survey of 2,485 non-agricultural establishments with at least 100 workers concerning benefits available to full-time workers	For parental leave, Paid / Unpaid women 2% 33% Men 1% 16%	NA	NA	Employees have "reasonable expectation" of returning to own or similar job, although not always specifically guaranteed.	NA	NA	NA	NA

Notes: NA=not available

Source: Compiled by the Institute for Women's Policy Research

supervisors (U.S. Chamber of Commerce, 1986). In 1987, the Center for the Child surveyed over 2000 small and large firms in the private and public sectors and found that 61 percent of respondents had eight or more weeks of leave for childbirth or care of newborns (NCJW Center for the Child, 1987). Most recently the U.S. Department of Labor's survey of medium and large firms found that 33 percent of women workers in these firms were eligible for unpaid maternity leave and 16 percent of men were eligible for unpaid paternity leave. An additional two percent of women and one percent of men were eligible for paid leave (U.S. Department of Labor, 1989).

A major difficulty in interpreting these findings arises from the wide array of meanings that have been attached to the terms 'parental leave' and 'maternity leave.' As the Chamber's survey attests, most employers who claim to have parental or maternity leave mean that their employees are entitled to use some combination of sick and/or vacation leave as maternity leave. Under the formal leave plans, some employers offer temporary disability, which is limited to the physical disability associated with childbirth, while others offer a leave specifically for purposes of parenting, which applies to adoptive as well as biological parents. Most policies apply to new mothers, while only a few apply to parents regardless of gender. Variation in the framing of questions across surveys exacerbates the difficulty of interpretation. For example, in their 1986 Employee Benefits Survey, the Chamber asked respondents to estimate their company's total cost for a 'mother-child bonding period.' The meaning of this term of art may not have been clear to many respondents and hence their answers may not have been valid or reliable. The most reliable figure is probably the U.S. General Accounting Office's (GAO) estimate that 29 percent of working women are entitled to six weeks of disability leave upon the birth of a child (Gainer, 1987:3).

Five states require all employers to provide short-term disability plans or subscribe to a state plan; these plans cover pregnancy, but only California requires reinstatement of women after a period of pregnancy disability. Approximately 23 percent of all U.S. workers live in these five states. Some states require job-protected leaves for childbirth and some (Connecticut, Maine, Minnesota, Oregon, Rhode Island, Washington and Wisconsin) have now passed

Table 2

Estimated Number of Employees Covered in States with Family and Medical Leave or Parental Leave

	All Employees	Estimated Employees Eligible for Policy
FMLA States		
Connecticut[1]	1,695,000	747,500
Maine[2]	561,000	313,000
Wisconsin[3]	2,339,000	1,135,000
Parental Leave States		
Minnesota[4]	2,137,000	842,000
Oregon[5]	1,302,000	492,000
Rhode Island[6]	500,000	158,000
Washington[7]	2,084,000	637,000
Total	10,618,000	4,324,500
Percent of U.S. Labor Force	9.5%	3.9%

Notes:

1. Effective July 1, 1990, Connecticut will have a leave policy for birth, adoption, illness of child, parent or spouse and medical leave for employee's own illness. The policy allows employees who have been employed for 12 months or more in firms with 250 employees or more (to be phased down to 75 by 1993) to take 12 weeks of leave (to be phased in to 16 weeks by 1993) every two years for the above stated reasons.

2. Maine's current law covers family and medical leave for birth, adoption, illness of child, parent or spouse, or employee's own illness. The policy allows employees who have been employed for 12 months in firms with 25 or more employees to take 8 weeks of leave within two years.

3. Wisconsin's current law covers employees who have been employed for one year in firms with 50 or more employees and allows for 6 weeks leave within one year for birth or adoption, 2 weeks within one year for ill family members (total family leave time not to exceed 8 weeks within 1 year), and medical leave for 2 weeks within one year for employee's own illness.

4. Minnesota's current law provides six weeks of parental leave for birth or adoption for employees who have been employed for one year (at 20 or more hours per week) in firms with at least 21 employees.

5. Oregon's current law provides 12 weeks (per child) of parental leave for birth or adoption of a child under age 6 for employees who have been employed for 90 days or more in firms with at least 25 employees.

6. Rhode Island's current law provides 13 weeks (within two years) of parental leave for birth, adoption or illness of a child for employees who have been employed for 12 months (full-time) in private firms with at least 50 employees or in any city, town, municipal or state agency with at least 30 employees.

7. Washington's recent (effective September 1, 1989) law provides 12 weeks (within two years) of parental leave for birth, adoption or illness of a child for employees who have been employed for one year (35 or more hours per week) in firms with at least 100 employees.

Source: Institute for Women's Policy Research estimates of employee eligibility based on data presented in Spalter-Roth, Hartmann and Gibbs, *Unnecessary Losses: Costs to Workers in the States of the Lack of Family and Medical Leave.* Washington, D.C.: Family and Medical Leave Act Coalition, August, 1989.

either family and medical leave or parental leave laws (Women's Legal Defense Fund, 1990). Table 2 shows that only 3.9 percent of U.S. employees are affected by state laws (passed prior to November 1989) that require family and medical or parental leave. (Late in 1989, New Jersey enacted a parental leave law that will cover approximately 1.9 million employees by 1994.) As the studies described above indicate, an unknown portion of the rest are covered by voluntary employer policies. Consequently, a great many workers are probably not covered by any formal parental leave policy and do not have the right to the same or a similar job when they are ready to return to work.

Research on who currently uses leaves and at what cost to employers is even less revealing. All of the surveys in Table 1 are limited to such questions as whether employers have policies, what type, and who is eligible. How many workers actually use which policies, for how long, and at what rate of pay has not been satisfactorily addressed in a major survey of a nationally representative sample of employers or workers. A recent study by the U.S. General Accounting Office (1987) estimates potential national usage of job-protected unpaid leaves, based on the number of workers in the eligible population (e.g., working women with infants) and the average amount of paid leaves (sick, vacation, short term disability) likely to be available to them according to a 1986 Bureau of Labor Statistics survey of employee benefits. These hypothetical estimates of usage, the best now available, are far from adequate because they are not based on data collected to answer the questions at hand. In fact, with the exception of a forthcoming study by O'Connell which suggests that 47 percent of employed women who gave birth to their first child between 1981-1985 used maternity or paid leave and an additional 20 percent used unpaid leave, virtually nothing is known now on *current* usage of employers' *existing* plans. Moreover, since exploratory research by Trzcinski (1989) for Connecticut suggests that many, if not most, plans are discretionary, data on actual usage and eligibility are critical.

Proposed Legislation and the Current Debate

The purpose of the proposed Family and Medical Leave Act, as stated in its preface, is to help family members and workers balance both family and work aspects of their lives, to promote the economic security and stability of families, and to entitle employees to take reasonable parental or medical leave without risk of termination by employers. As originally stated in H.R. 925 and its companion bill S. 249, the Act would have required employers with 15 or more employees to allow workers to take unpaid leaves of up to 18 weeks in a 24 month period upon the birth or adoption of a child, or to care for an ailing family member. (The House version would have allowed leave to care for elderly parents, the Senate version only for care of seriously ill children.) Workers with medical disabilities would have been permitted up to 26 weeks of job-protected leave during any 12 month period. Employers would have been permitted to limit combined leave taking to 36 weeks in a 12 month period. Employees would have qualified for the benefit after three months of service or 500 hours, whichever occurred earlier (House version), or would have been included if they were permanent part-time workers (Senate version). Both versions would have required employers to maintain health insurance, if they carried it, during absences, paying the same share of it as they usually did.

Both the House and Senate bills have been modified to cover fewer workers and offer less protection. The 1989 version of the House bill (H.R. 770), originally unveiled in November 1987 as amendments to H.R. 925, would initially apply only to employees of businesses with 50 or more workers; after three years, the legislation would apply to establishments with 35 or more workers. Dependent care leaves would be limited to 10 weeks over two years, and medical leaves to 15 weeks per year. Employees would not be entitled to leave until they had worked at a business at least 20 hours per week for at least one year, and employers would be permitted to deny reinstatement to the highest-paid 10 percent of their employees. The GAO estimates that this version of the proposed legislation would cover less than 40 percent of the U.S. labor force (U.S. GAO, 1988).

As reintroduced in 1989 (originally revised in June 1988), the Senate bill (S. 345) decreases the number of firms and workers affected from those firms with 15 or more employees (without regard for length of service) to firms with 20 or more workers (who have been with the firm at least a year and work at least 17.5 hours per week). The new version of the bill also reduces the permissible length of unpaid leave from 18 weeks to 10 weeks for birth, adoption, or serious illness of a child (but now includes illness of a parent) and from 26 weeks to 13 weeks for personal illness. Payment of the employers' share of health insurance for the absent worker is still required in both bills.

As the bills have gained media attention and popular support, a broad coalition of trade associations spearheaded by the U.S. Chamber of Commerce have barraged them with criticism. The Chamber declared itself opposed to "rigid new government mandates." In testimony before the Senate, it emphasized the costs of the proposed Act to employers and estimated that the legislation would cost $27.2 billion annually, principally due to the cost of hiring replacements (Shane, 1987). Later, the Chamber revised its estimate substantially downward to $2.6 billion. The American Society of Personnel Administrators warned that the Act "will not help put America back on the road to competitiveness," but instead "will interfere with efforts to decrease costs and increase productivity" and will be "expensive and disruptive," especially for small business (Simpler, 1987). According to Radigan (1989), the terms and criteria used to evaluate the Act changed dramatically with the Chamber of Commerce's entry into the debate. The focus of evaluation then shifted

from the benefits to families to the costs to business.

Two major assumptions underlie the current discussion of costs to business: (1) that business or employers are the only group that bear the costs of family and medical leave; and (2) that no costs arise from the *current* haphazard set of private and state-level policies and the lack of a coherent national family and medical leave policy.

The purpose of the research reported here is to broaden the discussion of the costs and the benefits of proposed legislation guaranteeing job-protected family and medical leaves. Rather than projecting hypothetical *costs of proposed legislation, this study looks at the* current *costs to working women and men, to employers, to taxpayers, and to society as a whole of three kinds of daily life-cycle activities performed by working adults: caring for newly arrived children; caring for oneself or an immediate family member during illness; and caring for elderly parents. Throughout the report, we calculate the economic costs or consequences of these activities by comparing workers who have experienced them within a given period to similar groups of workers who have not. We estimate the differences in consequences for men and women, blacks and whites. We also compare the economic costs or consequences of a newly-arrived child to women who have some form of parental leave with those faced by women who have no such leave. Costs to women and their families are generally estimated in terms of lost earnings, and costs to taxpayers in terms of income assistance to affected workers. Finally, a dollar value is assigned to the unpaid work (primarily done by women) of caring for the elderly – work that results in savings to businesses and to taxpayers at the expense of caregivers.*

The Research Study

Identifying Current and Proposed Costs and Benefits

Economic Costs

When a person leaves employment temporarily because of the arrival of a child, illness of a family member, or his or her own illness, economic costs arise for three groups: employers, workers, and society. Economic costs include not only the cost (such as lost earnings) of the event itself, but also the losses that are expected to occur in the future as a result of the event.

Employer Costs. If an employee leaves work for childbirth, her or his own illness, or to care for a family member, the employer must arrange for the work to be done in another way or replace the worker either temporarily or permanently. In a study of the current behavior of some 80 employers in two metropolitan area labor markets, described further below, the GAO (1987) found that employers generally do not replace absent workers who are expected to return; fewer than 1 in 3 absent workers are replaced. When employers do replace an absent worker, temporarily or permanently, they incur costs: recruiting, hiring, and training a new replacement worker rep-

resent costs to the firm. However, these costs are incurred whether or not a parental or medical leave requirement is in place. In fact, most of the costs to business that critics attribute to parental and medical leave actually arise directly and unavoidably from having babies or being ill. Given that women will continue to have babies and that workers will continue to provide care for others and become ill themselves, employers necessarily will have to deal with their absence from work.

Leave legislation would, however, bring a *potential* additional cost to employers if they choose to replace workers temporarily rather than cover for them in other ways. Temporary replacements may involve additional costs because they may be less productive than permanent replacements and because some administrative costs may be involved in terminating temporary workers and reinstating former workers. Hiring a temporary instead of a permanent replacement might be *less* costly, however, as the rapid growth of the temporary help industry suggests. Employers may actually save by replacing temporarily, because the productivity of returning workers is likely to be higher than that of most replacements.[2] In addition, allowing workers to return after a leave enables employers to reduce turnover and retain skilled, experienced help.[3]

Costs of Present System of Leave

- Costs fall on workers, their families, employers, taxpayers and society
- Workers without leave lose more earnings than workers who have leave
- Workers without leave receive more public income assistance than workers with leave (taxpayers pay more for those without leave)
- These costs continue for several years beyond the year of absence from work

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Worker Costs. The worker bears the costs of the arrival of a child, personal illness, or the illness of family members. Some costs, such as the medical costs of birth (or illness) and wage loss during absence from work, are not addressed by the proposed legislation (though the cost of health insurance is). Other 'future' costs faced by workers not currently covered by state or private leave plans are addressed by the proposed legislation. These include the unemployment of the worker unable to find a job immediately upon re-entry into the labor force and the lower wage a worker might be forced to take when she or he does find another job.

Societal Costs. The absence of a coherent national leave policy creates costs for society. Because workers are likely to experience more unemployment and wage loss without parental and medical leave, productivity is lost to the economy. Even if the employer were to find an equally productive employee to replace an absent one, and so minimize loss in her or his own workplace, society would still lose productivity because the former trained and skilled workers would have to find new jobs. Workers without job-protected leave are often unemployed for long periods in search for new jobs or employed at new jobs below their capability.[4] Thus the employer's action in terminating an ill or pregnant worker can be viewed as creating a cost for all of society in the same sense that all of society bears the consequences for one factory's pollution. By requiring reinstatement, the proposed legislation addresses this social cost. Because the former workers will experience less unemployment and wage loss, the productivity lost by the economy when they are unemployed, or employed below their capability, would be saved.

The economic costs to women and their families, employers, and society of two policy alternatives–having a parental leave policy or not having one–are identified in Table 3. This analysis of costs applies as

Table 3

True Economic Costs of Births and Parental Leave

	Having a Baby	Not Having Parental Leave (no guaranteed right to return to job)	Having Parental Leave (guaranteed right to return to job)
To Parents:	Mother's time spent recovering from birth and caring for baby[1]	Mother's wage loss on return to work[2]	(Benefits: Mother's wage loss on return to work is reduced by parental leave)
	Father's time spent caring for baby	Mother's time spent unemployed and out of the labor force when would prefer to work[2]	(Benefits: Mother's time spent unemployed and out of labor force is reduced by parental leave)
To Employers:	Mother's time away from job	Productivity lost from undesired turnover and loss of experienced worker	Productivity lost from having a temporary rather than permanent replacement (May be offset by productivity gains after return of former worker)
To Society:	Lost productivity of mother	Additional lost productivity because mothers without leave experience lower wages and more unemployment when they return to work	Resources used to arrange for temporary replacements (e.g. temporary agencies) (May be offset by productivity gains after return of former worker)
	Health care resources used in pregnancy and childbirth[3]		

Notes:

1 Transfers from employers in terms of paid sick or disability leave ameliorate the resulting income losses for some workers.

2 Public income assistance payments (unemployment insurance, welfare, etc.) ameliorate these income losses for some workers.

3 Employer provided health insurance or public programs such as Medicaid are transfer payments that are used to pay for these costs.

Source: Institute for Women's Policy Research

well to workers who are ill, and to workers who must leave work to care for someone else who is ill. Just as for the case of childbirth, ill workers generally lose income, and employers and society lose the productivity that ill workers formerly supplied to the workplace. Employers must replace these workers on a temporary or permanent basis and they do so now. It is the illness of the workers that requires that replacements be recruited and trained, not any proposed legislation. What the proposed legislation does do, however, is require employers to make those replacements on a temporary basis and to take back the former workers.

Financial Costs

The economic costs of absence for illness and dependent care to workers and their families, employers, and society are primarily lost output for employers and society, lost income to workers, and resources that are used for health care and worker replacement. Financial costs, as distinct from economic costs, also arise for society, employers, and workers. These are, however, generally considered to be transfers from one group in society to another and do not represent new economic costs. The cost of health insurance and the cost of income assistance are examples of financial costs.

One set of transfer payments that is particularly important in evaluating public policy is the set paid

by taxpayers. In the case of family and medical leave, public income assistance programs such as welfare, food stamps, and unemployment insurance may all be used more by workers whose employers do not provide them with job-protected leaves than by those whose employers do. This publicly-provided assistance to workers and their families can be viewed as a hidden subsidy to businesses from taxpayers, who, in effect, bear a financial burden for the failure of employers to provide consistent job protection. While the costs of transfers are not directly addressed by the proposed legislation, they are likely to fall if workers have the right to return to their jobs. In estimating the cost of any new public policy, therefore, it is important to determine the cost now being borne by taxpayers because of the existing lack of public policy.

Data and Methods

The estimates of the current costs of parenting and illness developed in this study are based on data gathered by the Institute for Social Research at the University of Michigan from a sample of nearly 7,000 households that are interviewed annually. The households in the sample, called the Panel Study of Income Dynamics (PSID), provide annual information on their labor force participation, their employment and unemployment status, their hours on and off the job, earnings, other sources of income including public transfer programs, and family size and other demographic information. In 1983-84, respondents were asked questions about their employee benefits, including the following question about parental leave: "Would you/she (your wife or companion) get any leave (besides regular vacation time) from your (her) main job, if you (she) had a baby?" This is not an ideal question about parental leave since it does not distinguish among parental leave, maternity leave, sick leave, or disability leave. Nonetheless, the PSID is, to our knowledge, the only current, nationally representative panel survey to ask a question of this type, and to elicit other income and demographic information that is useful in evaluating the outcomes of parenting and illness to workers, to employers, and to society. (It should be noted that the PSID does not provide information on firm size.)

To estimate the costs of parenting, we compare the economic circumstances of women under the age of 41 who had or adopted a baby and were employed at least 600 hours in the year previous to the child's birth to the circumstances of women who did not have or adopt a baby but were similarly employed. Four points in time are considered–the year prior to birth, the birth year, the first year after the birth, and the second year after the birth. (Women with births are those who had only one birth during the four-year period; the years in the sample are calendar years and range from 1978-79 to 1983-84.)[5] These groups of women were also disaggregated by race in order to compare the outcomes of parenting for black and white women. (Unfortunately, the PSID sample is not large enough to allow comparison of differences among Hispanic and Asian American women.) Because of the question on parental leave in the 1983-84 interviewing year, comparison of the economic circumstances of those women who had (or adopted) babies and who reported that they *had some form of leave* with those who had or adopted babies but *reported having no such leave* is possible. Women who had babies are also compared to men who had babies, and white men who had babies are compared to similar black men. (While 'men whose wives had babies' is more biologically correct, 'men who had babies' is more socially correct.)

To estimate the costs of illness, we compare workers (both women and men) under age 55 who were not retired and who either *experienced* or *did not experience illness* of their own or of a family member that required absence from work of more than 50 hours (in any one year out of each four-year period

under examination), and who were employed for at least 600 hours in the year prior to this event. Here again, we disaggregate these groups by race.

Where differences exist in outcomes between those who experienced birth or illness and those who did not, the net differences (that is, gross differences in outcomes net of differences in initial conditions) are interpreted as being due to the events. For example, if the differences show that women who had a baby are significantly 'worse off' during the years following a birth or adoption than they were in the year prior to the birth when compared to women who did not have babies, the differences are interpreted as the costs to the women of having (or adopting) a baby. Several indicators were examined to explore what 'worse off' might mean, including annual work hours, unemployment hours, housework hours, out-of-labor-force hours, hourly wage, annual earnings, and income from public transfer programs. Financial costs to taxpayers are estimated by the dollar amount of the additional income from government programs received by workers who experienced a relevant event (who give birth but have no leave or are absent because of illness).[6] To provide estimates for all women or workers in the United States, the experience of all workers is assumed to be similar to that in the PSID sample, since the sample is representative of the U.S. population. All dollar figures are converted to 1986 dollars. The definitions of the indicators and our methodology are explained in more detail in Appendix 1.

Because of the lack of information on eldercare in the PSID, a somewhat different methodology, described later, is used to evaluate the costs of this activity.

Some of the costs estimated, such as differences in annual earnings, are borne primarily by individual women and their families. Others, such as the differences in the money value of income from public assistance programs, even when calculated on an individual basis, are financial costs to taxpayers. Still others, such as hours of unemployment, while experienced as individual suffering, are also costs to employers and costs to society of the lost productivity of trained workers.

By providing estimates of the costs of the current situation, this study provides a baseline from which to assess the added costs that proposed legislation might impose on businesses. Knowing the current costs of the lack of a coherent national policy also facilitates estimating the benefits to Americans of national legislation. To the extent that the current haphazard system imposes costs on businesses in the form of lost productivity, a national policy may also bring benefits to businesses.

The Findings

Costs of Having a Baby

What do the data show? Chart 1 displays estimated annual earnings for working women who had or adopted babies compared to women who did not have babies. In the year before the birth, the earnings of women who had babies looked very similar to those who did not. Those who had babies earned slightly more than those who did not ($12,586 compared to $12,399 in 1986 dollars, respectively), even though they were somewhat younger (mid-twenties compared to early thirties, respectively). Although there were no significant differences in "pre-birth" hourly wage rates or annual hours of employment and unemployment between the two groups, those who subsequently gave birth did spend somewhat more hours out of the labor force and somewhat more hours doing housework in the pre-birth year (these indicators are not shown on Chart 1, but can be found in Appendix Table 1). They also received significantly less transfer income (income assistance) than those women who did not give birth in the following year. In short, those who gave birth looked slightly better off financially in the pre-birth year than those who did not give birth.

In the year of the birth, however, the economic circumstances of new mothers began to shift. Primarily because of time lost from work, their annual

Table 4

Estimated Earnings Losses to Employed Women under Age 41 Who Gave Birth or Adopted a Baby Compared to Employed Women Who Did Not Have a Baby

Panel A. Total: Women Who Did and Did Not Return to Work

Earnings Lost for Births that Occurred:	Earnings Loss per Woman	Earnings Losses for All Women Who Had Babies
	(1986 dollars)	(1986 dollars)
Current Year	$ −3,232	$ −6,933,000,000
Prior Year	−5,993	−12,855,000,000
Two Years Before	−5,204	−11,163,000,000
Current Annual Losses	$ −14,429	$−30,951,000,000

INTERPRETATION: It costs American women $31 billion in earnings losses annually to have the next generation of workers and citizens.

Panel B. Only Women Who Returned to Work

Earnings Lost for Births that Occurred:	Earnings Loss per Woman	Earnings Losses for All Women Who Had Babies
	(1986 dollars)	(1986 dollars)
Current Year	$−2,632	$ −4,011,000,000
Prior Year	−2,973	−4,531,000,000
Two Years Before	−2,855	−4,351,000,000
Current Annual Losses	$−8,460	$−12,893,000,000

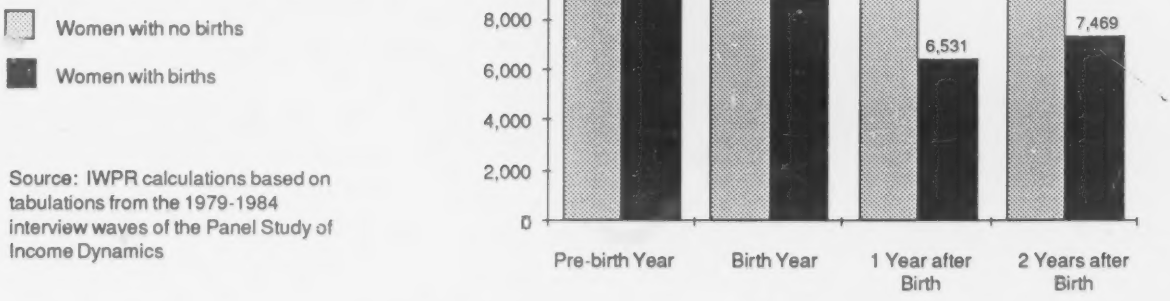
INTERPRETATION: American women who return to work within two calendar years after the year of birth (or adoption) lose $12.9 billion in earnings annually to have the next generation of workers and citizens.

Note: Earnings of women who gave birth or adopted a baby are compared to earnings of women who did not have a baby; differences shown are net of pre-birth year differences between the two groups of women. See Appendix Table 1

Source: Institute for Women's Policy Research calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan (see Appendix Table 1). The number of all working women giving birth is based on data from U.S. Department of Commerce, Bureau of the Census, "Fertility of American Women: June 1985" (Table 4), as adjusted by IWPR, which suggest that 2,154,000 employed women had births in 1985, and 1,524,000 of these women returned to work within two calendar years after the year of birth of the child.

Chart 1

Women Who Have Babies Lose Substantial Amounts of Earnings



Source: IWPR calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics

earnings fell dramatically, to $9,112 on average, although the hourly wage gap between the two groups still slightly favored the new mothers and they were still significantly less likely to be unemployed (possibly because of a significant increase in out-of-labor-force hours–presumably to have the baby).

By the year after the birth, hourly wage rates, hours of employment, and hours of unemployment also differed significantly between the two groups of women. Those who had babies worked 746 fewer hours in the year after birth, and the new mothers' wage rates were now $1.14 less per hour than those of women who did not give birth (where previously they were 26 cents higher). Simultaneously, their hours of housework and receipt of public transfer income increased. New mothers went from receiving significantly less transfer income than those who did not give birth to receiving significantly more. Comparative annual earnings losses for the new mothers were substantial (see Chart 1). In the year after the birth, the losses were almost $6,000 per woman relative to the earnings of women with no new baby. (Losses were less in the birth year, because the birth may have occurred at any point during the calendar year; many women could have worked at their former hours and wages most of the birth year.)

The second year after the birth, new mothers' annual earnings recovered somewhat (because the new mothers were working somewhat more hours and experienced fewer hours out of the labor force), but they were still earning substantially less than pre-birth levels. The hourly wage gap continued to increase in favor of those who did not give birth, and new mothers continued to do approximately four times as many hours of housework as they did in the pre-birth year. From somewhat better-off in the pre-birth year when compared to those who did not have a baby during this period, new mothers became worse off in the years after giving birth. Likely, the losses continued beyond the second year.

Societal Costs

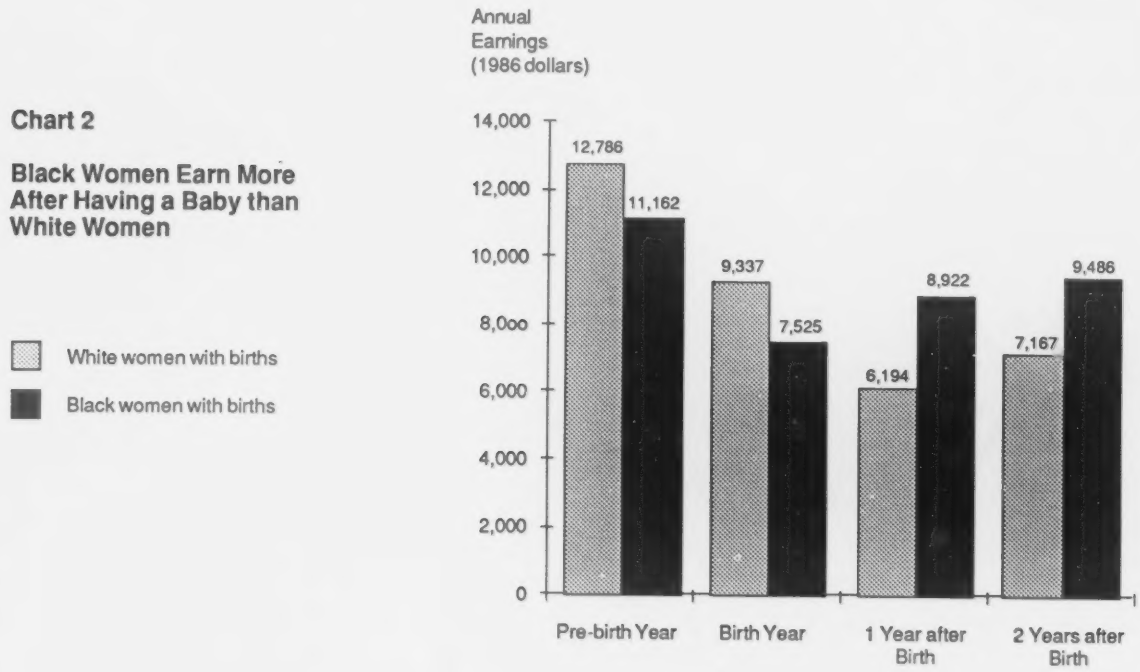
In Table 4, Panel A, the losses to individual women are generalized to all employed women in the U.S. who gave birth. The losses in earnings alone to American working women who had babies total nearly $31 billion annually. In estimating current annual losses, we assume that losses in the current year include losses that accrue to women who give birth in the current year, those who gave birth the year before (and are currently suffering 'one-year-after' losses),[7] and those who gave birth two years before (who are currently suffering 'two-years-after' losses). To aggregate the earnings losses of all women, we multiplied each woman's average loss by the estimated number of working women who give birth annually.[8]

Race Differences

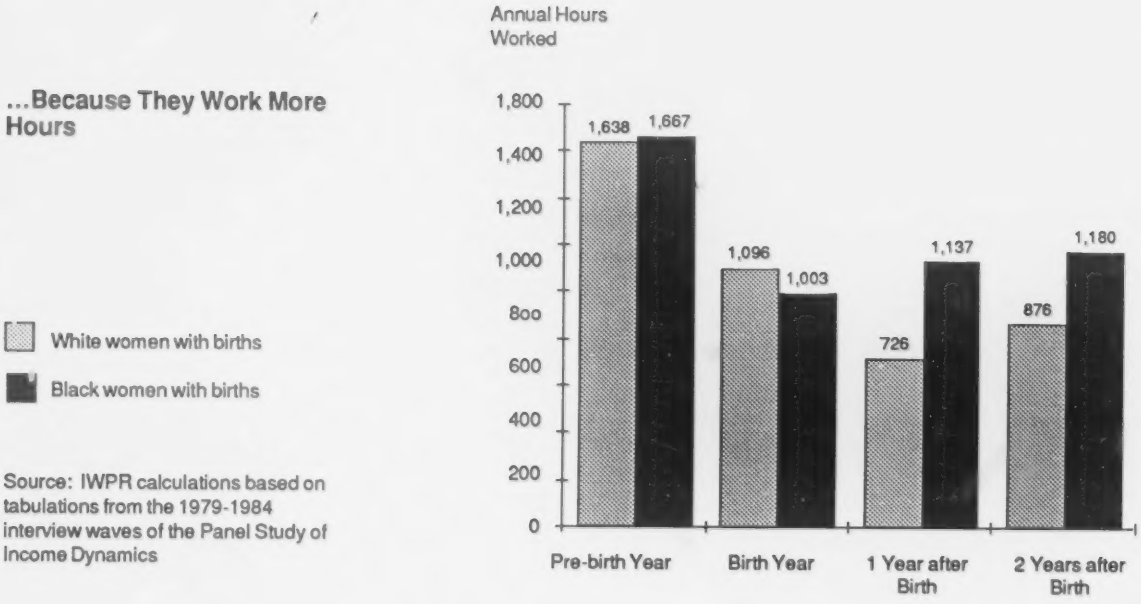
To what extent do these findings reflect the experiences of black as well as white women? Although both black and white mothers suffered losses in earnings in the birth year and the two post-birth years, the experiences of black and white women, as reflected in these data, were different. As shown in Chart 2, black women who had babies had significantly lower annual earnings (approximately $1,600 less in 1986 dollars) in the pre-birth year than did white women who had babies. They also received a significantly lower hourly wage ($1.22 less per hour, Appendix Table 2). In the birth year, the earnings difference and hourly wage gap increased, possibly because, on average, black women experienced more unemployment and worked fewer hours. But in the two years following the birth, the earnings gap closed. In 1986 dollars, new black mothers earned $2,700 more than new white mothers in the first year after they gave birth and $2,300 more in the second year. As shown in the bottom panel of Chart 2, this increase in annual earnings was a result of the significantly higher number of hours black women worked (411 hours more in the year after birth and 304 hours more in the second year after birth). These addi-

Chart 2

Black Women Earn More After Having a Baby than White Women



...Because They Work More Hours



Source: IWPR calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics

tional hours of work probably reflect the special needs of new black mothers to stay in the labor force and earn a living. However, the hours of unemployment faced by black mothers also grew larger in each of the two post-birth years, 35 more hours of unemployment than white women in the first post birth year and 75 more hours in the second year after birth (Appendix Table 2). These figures suggest that the right to job reinstatement after childbirth is especially crucial for black women, because their current earnings losses from unemployment are so high.

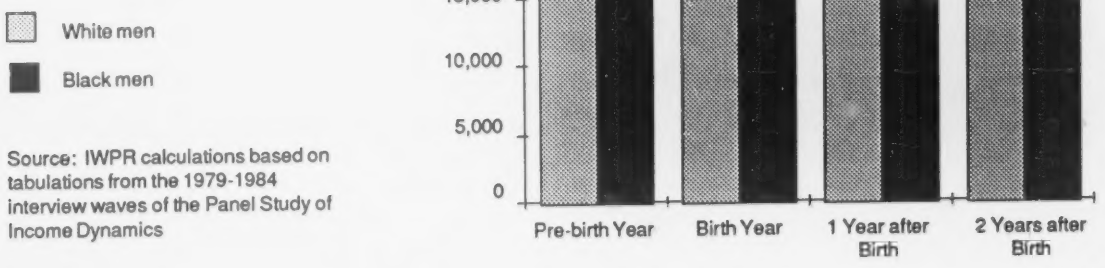
The right to job reinstatement appears even more crucial for black women when we consider the findings presented in Chart 3, which compares the situations of black and white men in the years before and after the birth of a child. Black men are relatively disadvantaged in the labor market in general. The data show that relative to white fathers, the economic circumstances of black fathers worsened in the years following the birth or adoption of a child. As Chart 3 shows, disparities in earnings between white and black fathers, who earned $25,201 and $20,218 (in 1986 dollars), respectively, were already significant in the pre-birth year. These disparities increased to more than $8,000 by the second year after birth. The data also show a significant increase in black fathers' unemployment hours compared to white fathers' in the years following the birth or adoption of a child (see Appendix Table 3).[9] As a result of these losses, black women were less able than white women to rely on an increase in their spouse's income to rear a child. Thus, having a birth increased sex role differentiation–(as measured by earnings and labor market behavior) for whites and decreased it for blacks. In terms of income-earning, there was less of a gap and more equity between black couples–although given their lower annual earnings this smaller gap is not altogether positive. Unfortunately, the PSID does not show if black fathers substituted child care time for lost earnings.

Gender Differences

When the annual earnings of women who had babies are compared to those of men who had babies, the differences, which were substantial in the year before the birth ($12,000, in men's favor), greatly magnified in the year of birth or adoption and in the two following years to almost $19,000 annually. The numbers that compare all working women who had babies to all men who had babies are very dramatic

Chart 3

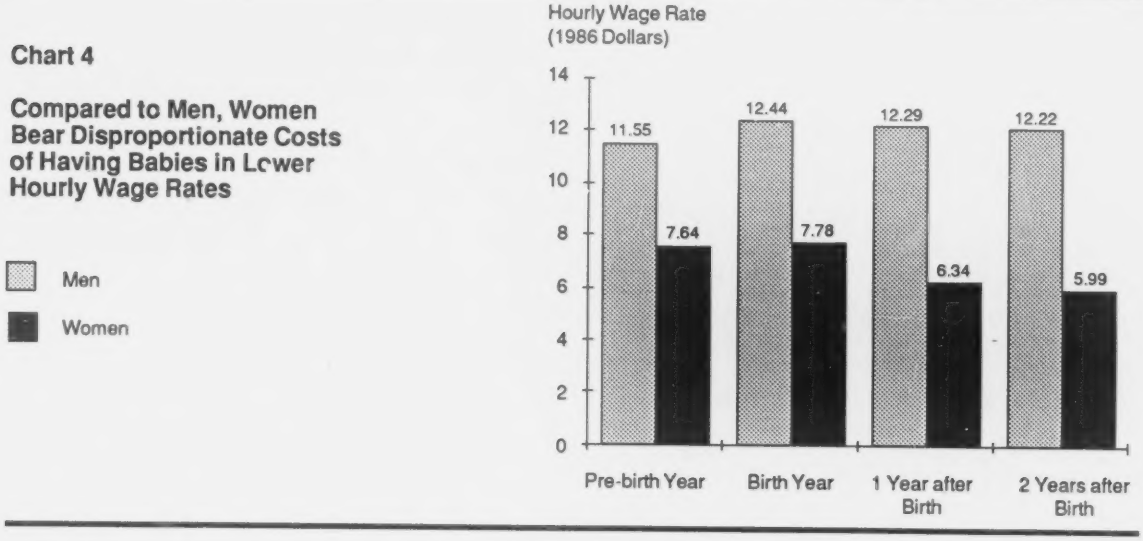
Black Fathers Are Disadvantaged in the Labor Market Compared to White Fathers



Source: IWPR calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics

Chart 4

Compared to Men, Women Bear Disproportionate Costs of Having Babies in Lower Hourly Wage Rates



(see Appendix Table 4). In Chart 4, just two indicators, hourly wages rates and hours of housework (which here do not include hours spent on child care) are selected for display. These indicators illustrate that women bore a disproportionate share of the costs of having children. Between the year before the birth and two years after the birth, women's hourly wage rates, relative to men's, declined by 60 percent (in constant dollars) and their housework hours increased 22 percent. As a result of having a baby, economic equity between the sexes declined, and women became increasingly burdened with unpaid work. Other researchers have shown that this uneven exchange goes on to have negative consequences for women's lifetime earnings and for their retirement and old age (e.g. Reskin and Hartmann, 1986).

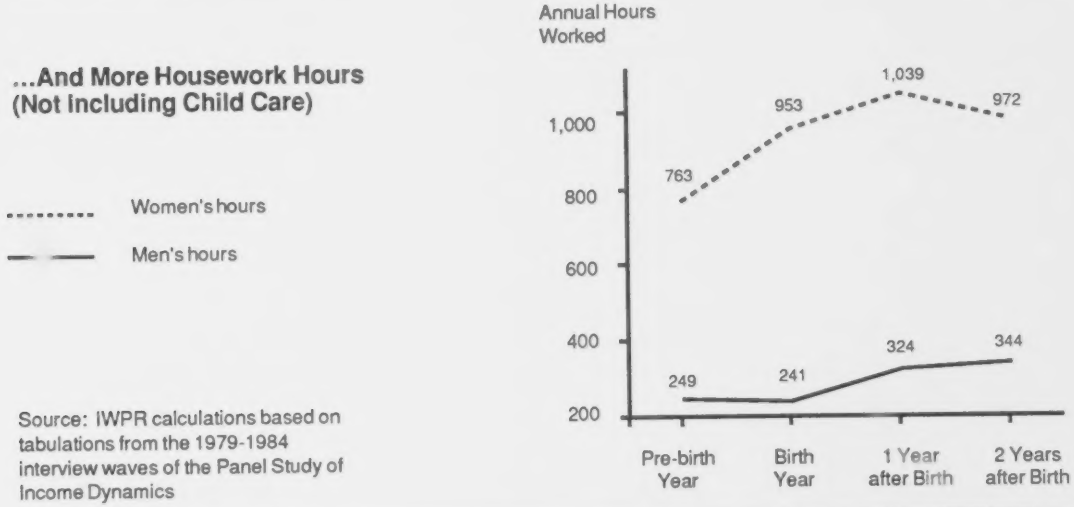
As noted above, these gender differences were more extreme between white men and women. The differences between black men and women remained relatively stable from the pre-birth through the post-birth years, with an annual earnings difference of about $8,000 (in 1986 dollars) and an hourly wage rate difference of about $3.00 in black men's favor.

Costs for Women Who Return to Work

The costs of having a baby described above are those that are incurred by all women who were in the labor force (for more than 600 hours) in one year and had a baby the following year, whether or not they returned to work in the two years subsequently. In the calculations reported above, the earnings of women who did not return to work, which were zero (0), were averaged in with those who did return and therefore had some earnings. Such a procedure accurately reflects the social costs, in terms of losses in earned income, due to having babies. But women who remain out of the labor force for two years after having a child are not the group of women that proposed legislation targets (although some portion of them might not have left the labor force if they had had the right to return to their jobs). Proposed legislation provides relatively short leaves, for both the disability period of childbirth and a period for providing parental care for newborn or adopted children.

To look at costs of having a baby for *only* the group of women who returned to work, we compared those women who had a birth (or adoption) and returned to the labor force at some point during the period of observation with those women who remained in the labor force continuously during the

...And More Housework Hours (Not Including Child Care)



Source: IWPR calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics

same period but had no birth (for all women, the definition of being in the labor force in any year requires 600 hours of paid employment during that year). When earnings losses for only women who returned to work are examined, as shown in Table 4, Panel B, page 16 above, the loss per woman is smaller than for all women who had babies, averaging $2,632 in the birth year and nearly $3,000 per year in each of the subsequent two years (these compare to the earnings losses shown in Table 4, Panel A, page 16 above, of $3,232 in the birth year and approximately $6,000 and $5,000 in the subsequent years).

These losses are substantial, and, when aggregated across all women who had babies and returned to work, they amount to $12.9 billion.

Costs to Taxpayers

In Table 5, the costs to taxpayers of women's childbearing is shown. Because working women who give birth or adopt children lose earnings, they also (on average) receive more income assistance than those women workers who do not have babies. In the pre-birth year women who subsequently had babies received $100 less income assistance on average per woman; during the birth year the gap closed, and in the two post-birth years, women who had babies received over $100 more on average (see Appendix

Table 5

Estimated Financial Cost to Taxpayers of Childbearing by Employed Women (under Age 41) Who Were Absent from Work to Have or Adopt a Baby

	Income Assistance Payments per Woman	Income Assistance Payments for All Women Who Had Babies
Income Assistance Payments for Births that Occurred:	(1986 dollars)	(1986 dollars)
Current Year	$ 96.80	$ 207,636,000
Prior Year	242.00	519,090,000
Two Years Before	242.00	519,090,000
Current Annual Cost	$580.80	$1,246,000,000

INTERPRETATION: Women who had or adopted babies received $1.2 billion in income assistance from U.S. taxpayers annually

Note: Income assistance payments to women who gave birth or adopted a baby are compared to payments to women who did not have a baby; differences shown are net of pre-birth year differences between the two groups of women. See Appendix Table 1.

Source: Institute for Women's Policy Research calculations based on special tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. The number of all working women giving birth is based on data from U.S. Department of Commerce, Bureau of the Census, "Fertility of American Women: June 1985 (Table 4), as adjusted by IWPR, which suggests that 2,145,000 women had births in 1985.

Table 1). The additional income assistance payments per mother are shown in Table 5 (net of pre-birth year differences) and, when aggregated to all women who had babies, the total cost to U.S. taxpayers is $1.2 billion annually. The relatively small cost to taxpayers in additional income assistance payments, when compared to the costs to women in earnings losses, indicate that under the present arrangements, women are bearing a disproportionate share of the costs of having the next generation of citizens and workers.

Costs of the Lack of Parental Leave

Data from the 1983-84 interview of the Panel Study on Income Dynamics, as shown in Table 6, Panel A, indicate that more than seven out of ten employed women reported having some form of leave besides vacation, with black women reporting slightly higher eligibility for leave than white women. About one out of three women reported that this leave was paid. Whether these women had access to sick leave, disability leave, additional parental leave, or some combination is unclear. The percentage of women who reported having some leave other than vacation time available to them for the purpose of having a baby and caring for an infant seems high in light of other data. For example, data from the Chamber of Commerce's Survey of Employee Benefits, shown in Panel B, indicate that nearly 80 percent of responding employers provide sick leave and slightly fewer than 40 percent provide short term disability leave. Data from the Small Business Administration's Health Benefits Data Base indicate that only 37 percent of the firms surveyed grant any sick leave and only 10 percent provide short-term disability.

Fewer than half of all black men and about one-third of all white men reported being entitled to

Table 6

Leave and Disability Coverage

Panel A: Childbirth/Parental Leave
(Data From the Panel Study of Income Dynamics)

Would You Get Any Leave (Besides Regular Vacation Time) From Your Job If You (Your Spouse) Had a Baby?

	(Percent of Workers Responding)		
	Yes	No	Don't Know
White Women	70.4	17.6	12.0
Black Women	79.8	14.1	6.2
White Men	36.5	42.9	20.6
Black Men	47.0	44.2	8.9

Is That Leave Paid?

	(Percent of Workers Responding)		
	Yes	No	Don't Know
White Women	31.5	63.0	5.5
Black Women	36.4	57.9	5.8
White Men	21.1	77.4	1.5
Black Men	23.8	75.3	0.9

Note: Totals may not add up to 100% due to rounding.

Source: Institute for Women's Policy Research tabulations from the 1984 interview wave of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan.

Panel B: Sick Leave and Disability Coverage
(Data From the Chamber of Commerce and the Small Business Administration)

	(Percent of Firms with Benefits)		
	Sick Leave	Short-Term Disability	Lon-Term Disabilility
U.S. Chamber of Commerce Survey	78	39	50
U.S. Small Business Administration Health Benefits Data Base	37	10	9

Source: U.S. Chamber of Commerce, *1985 Employee Benefits Survey*.; U.S. Small Business Administration, *Health Care Coverage and Costs in Small and Large Businesses*, April 1987.

leave other than vacation for the birth of a child (see Panel A). Male respondents (and especially white men) seemed particularly confused as to whether they were entitled to leave, with high percentages answering "don't know." Low and confused male responses probably reflected the assumption that childbirth and infant care are women's work, as well as ambivalence in company policy. Nevertheless, because the PSID provides data from workers rather than employers, we use these responses, despite their weaknesses, to show what effect having or not having parental leave has on women's earnings.

Among all working women who had babies and subsequently returned to work, the earnings of two groups of women were compared–those who had any form of maternity and parental leave, and those who had none other than vacation.

The data (in Appendix Table 5) show that those new mothers who reported having no leave were in significantly worse economic circumstances in the pre-birth year compared to those women who reported having some form of leave. This is not surprising, since women without any form of leave (other than vacation) for childbirth most likely work in less desirable jobs. Women who reported not being entitled to leave earned over $5,000 less per year (in 1986 dollars) and $2.65 less per hour than those who had some leave. Those without leave also experienced 50 more hours of unemployment and almost 200 more hours out of the labor force in the pre-birth year. These women's economic circumstances continued to worsen in the years following the birth or adoption of a child, with greater losses in earnings, wages and hours of work.

Tables 7 and 8 and Chart 5 illustrate the costs of not having any form of maternity or parental leave for those women who give birth or adopt babies. Table 7 compares, for several indicators, those new mothers who did not have maternity or parental leave to those who did. Those who had no leave had a wage loss of an additional 76 cents per hour in the birth year (compared to the pre-birth year), followed by smaller additional losses in subsequent years. By the second post-birth year, women without leave were still losing an additional 17 cents per hour compared to those women who did have some form of leave. Women without leave also experienced even more unemployment, particularly in the year after the birth (no doubt reflecting the need for job search), and more hours out of the labor force (sometimes interpreted as 'hidden' unemployment).

Chart 5 compares the annual earnings and earnings losses of women with and without leave when they gave birth or adopted babies. Earnings losses were large for both groups of women (more than $2,400 per woman every year when compared to women who remained in the labor force, but did not have babies during the same period). But those women who had no leave lost substantially more than those who had some leave over the three-year period ($9,279 vs. $8,191), even though they had substantially lower earnings the year before the birth. In percentage terms, those with some leave lost 51 percent of their pre-birth earnings over the following three years, while those with no leave lost 86 percent. As noted above, these additional losses occurred because those without any form of leave experienced more unemployment and lower relative wages (than those with some leave) when they returned to work after childbirth. As Table 8 shows, new mothers without leave each lost nearly $1,100 in additional annual earnings ($631 in the birth year, $218 in the first post-birth year, and $239 in the second year after birth) compared to those mothers with some form of leave.

Societal Costs

When the losses experienced by women who have no leave are generalized to estimate the annual costs to all employed women who gave birth but had no leave, as they are in Table 8, this loss totals almost $607 million. In estimating the annual cost of the lack of leave to all women who had babies, we count the earnings losses of those women who had babies

Table 7

Estimated Additional Losses of Not Having Leave To Employed Women Who Had Babies (Women under Age 41)

	Costs Per Worker			
	Birth Year	1 Year After Birth	2 Years After Birth	All Years
Wage Rate				
Difference in Hourly Wage Rate (1986 dollars)	$ – .76	$ – .25	$ – .17	$ –1.18
Hours Lost				
Difference in Unemployment Hours	– 12.6	85.1	31.7	104.2
Difference in Out-of- Labor Force Hours	25.0	84.4	– 15.7	93.7
Total Hours Lost	12.4	169.5	16.0	197.9

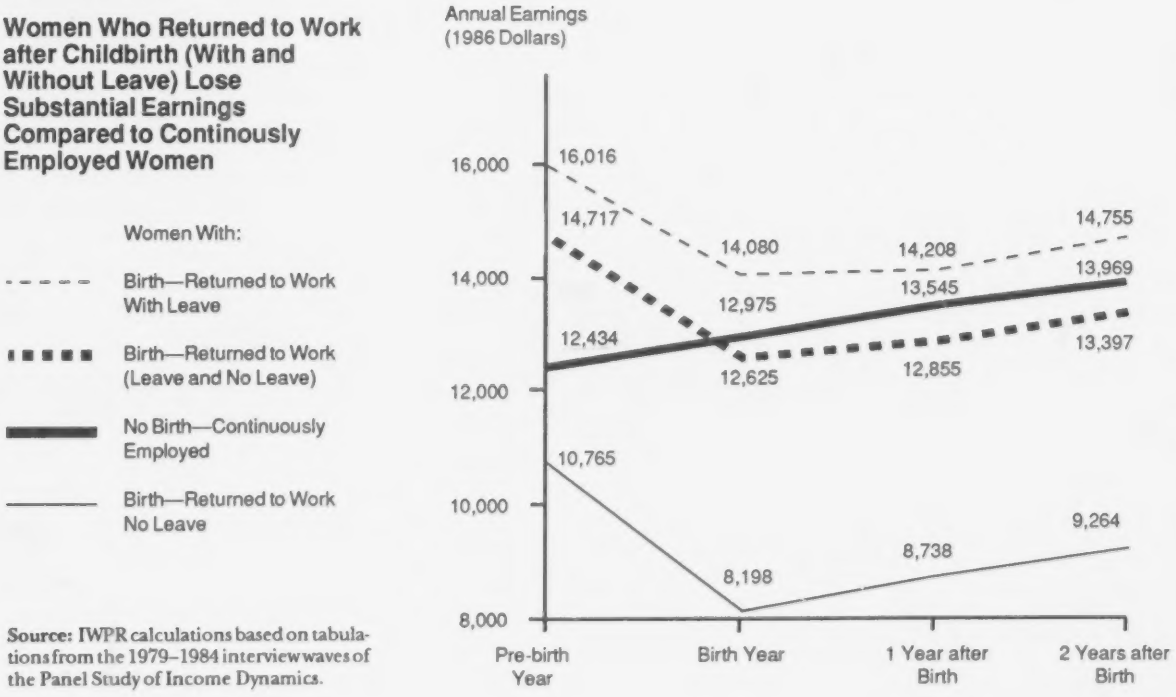
INTERPRETATION: Employed women who did not have some form of leave beyond vacation had lower hourly wage rates and experienced more unemployment (than those who had leave) when they returned to work after child birth or adoption.

Note: Losses to women with no leave beyond vacation are compared to those of women with leave. See Apendix Table 5.

Source: Institute for Women's Policy Research calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan.

Chart 5, Part A

Women Who Returned to Work after Childbirth (With and Without Leave) Lose Substantial Earnings Compared to Continously Employed Women



Source: IWPR calculations based on tabulations from the 1979–1984 interview waves of the Panel Study of Income Dynamics.

Table 8

Estimated Additional Earnings Losses of Not Having Leave to Employed Women Who Had Babies (Women under Age 41)

	Earnings Loss per Woman	Earnings Losses for All Women Without Leave
Earnings Lost for Births that Occurred:	(1986 dollars)	(1986 dollars)
Current Year	$ −631	$−351,900,000
Prior Year	−218	−121,500,000
Two Years Before	−239	−133,500,000
Current Annual Losses	$ −1,088	$−606,900,000

INTERPRETATION: Employed women who did not have some form of leave beyond vacation lost nearly $607 million in additional earnings annually when they returned to work after child birth or adoption, compared to women who had leave.

Note: Losses to women with no leave beyond vacation are compared to those of women with leave; differences shown are net of pre-birth year differences between the two groups of women. See Appendix Table 5.

Source: Institute for Women's Policy Research calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan (see Appendix Table 5). PSID data and data from the U.S. Department of Commerce, Bureau of the Census, "Fertility of American Women: June 1985" (Table 4), as adjusted by IWPR, suggest that 557,700 women who gave birth in 1985 did not have maternity or parental leave.

Table 9

Estimated Financial Cost to Taxpayers of Not Having Maternity or Parental Leave for Employed Women Who Had Babies

	Income Assistance Payments per Woman	Income Assistance Payments for All Women Without Leave
Income Assistance Payments for Births That Occurred:	(1986 dollars)	(1986 dollars)
Current Year	$ − 80.75	$ − 45,000,000
Prior Year	237.48	132,400,000
Two Years Before	36.25	20,200,000
Current Annual Cost	$ 192.98	$ 107,600,000

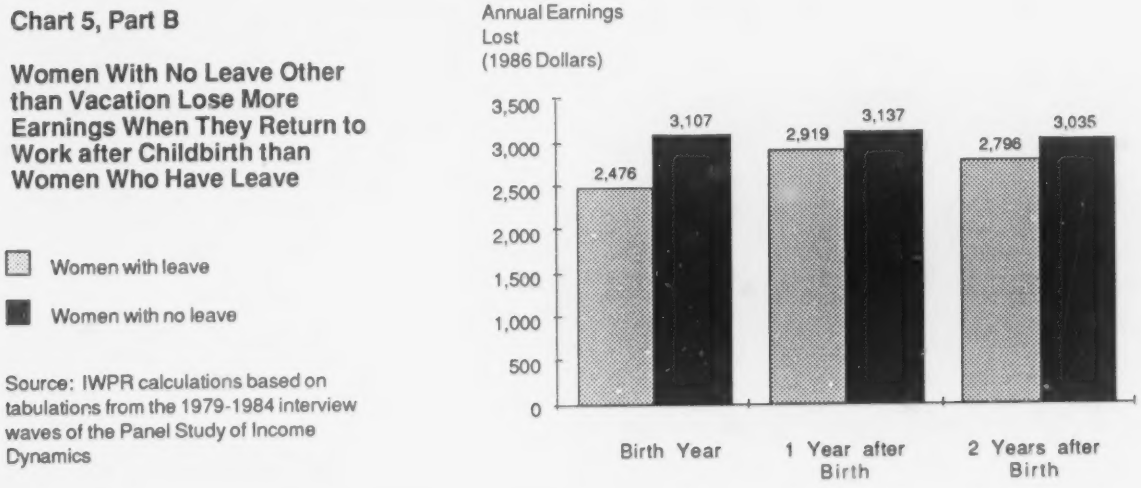
INTERPRETATION: Employed women who gave birth who did not have any maternity or parental leave cost American taxpayers nearly $108 million in additional income assistance payments annually compared to women who had leave.

Note: Income assistance payments to women with no leave beyond vacation are compared to payments to women who had leave; differences shown are net of pre-birth year differences between the two groups of women. See Appendix Table 5.

Source: Institute for Women's Policy Research calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan (see Appendix Table 5). PSID data and data from the U.S. Department of Commerce, Bureau of the Census, "Fertility of American Women: June 1985" (Table 4), adjusted by IWPR, suggest that 557,700 employed women who gave birth in 1985 did not have maternity or parental leave.

Chart 5, Part B

Women With No Leave Other than Vacation Lose More Earnings When They Return to Work after Childbirth than Women Who Have Leave



Source: IWPR calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics

in the current year, as well as the current losses of those women who had babies in the prior year and of those who had babies in the year before that. It is likely that women who had babies in earlier years were also experiencing earnings losses in the current year, but our data cover only three years of experience. In addition, we point out that although women and their families bear these costs personally, employers and society suffer from the additional output lost because these women had no leave and suffered more unemployment and greater earnings losses.

Costs to Taxpayers

Table 9 illustrates the part of the financial cost of not having maternity and parental leave that is borne by taxpayers. Data in Appendix Table 5 show that, despite their substantially poorer circumstances, women without any form of maternity or parental leave received only $1.85 more in income assistance payments (per woman) in the pre-birth year than did those with some form of leave. For reasons we cannot fully explain without further analysis, they received substantially less in income assistance payments in the birth year, despite their worsening economic circumstances, than women who did have some form of parental leave. In the post-birth year, their relative public assistance income increased but then decreased again in the second post-birth year. (These fluctuations may have to do with changing eligibility to receive unemployment insurance benefits.) Over all, women without leave received nearly $200 more in income assistance in the post-birth years, on average, than those who had leave.

When these additional costs per woman are generalized to all U.S. working women who had babies but were not covered by some form of parental leave, the estimated total, as shown in Table 9, is nearly $108 million in additional income assistance costs to taxpayers.

Estimating Cost of Lack of Parental Leave

- Based on 7,000 representative families in the Panel Study of Income Dynamics at the University of Michigan
- Included women under age 41 who had one birth (or adoption) during a four-year period, worked 600 hours or more the year before the birth, and returned to work after the birth.
- Women who had no leave beyond vacation were compared to those who had some leave (sick, disability, maternity or parental)
- Differences in earnings of women with and without leave were cumulated for all women who had babies and returned to work: $607 million
- Differences in income assistance received by women with and without leave were cumulated for all women who had babies and returned to work: $108 million

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These estimates of the costs of the lack of parental leave, though statistically significant, are probably underestimates. They may be so for several reasons. First, the proportion of the sample which reported having no leave in the single year that the PSID asked the question is small, and the small sample size may make the earnings loss estimates less reliable. The actual proportion of women with no leave may have been much larger, and hence the differences between the groups with and without leave may actually be larger and even more significant. Second, the analysis of the cost of lack of leave is confined to those women who returned to work. Most likely, more of those who did not return had no leave compared to those who did return. Thus, not returning is an additional cost of the lack of leave that is not measured here. (We also note here that the small sample size prevents us from estimating race differences in the effects of parental leave.)

Costs of Illness

Table 10 provides information on absence for illness by workers in the PSID sample. Workers were asked: "Did you miss any work in 1983 because you were sick? How much work did you miss?" Workers under age 55 reported that they were off the job due to illness for 0.82 percent of a working week or an average of four days, in survey year 1983-84. This figure is about one day less than the average for workers reported by the National Center for Health Statistics (Division of Health Interview Statistics, 1980). The difference is most likely due to the fact that the data used here include only workers age 55 and under; older workers were excluded to assure conservative estimates. Black men missed the most days because they were sick (about eight work days each in 1983) and white women missed the least (about 3.5 work days each in 1983). The extremely large standard deviations shown in Table 10 should be noted. This and other information about the shape and skewness of the distribution of this variable indicate that a relatively small group of workers were sick and off the job for a fairly long period of time.

In addition to the average of four days off the job due to their own illness, Table 10 shows that the average worker was off the job for one extra work day as a result of someone else's illness. Likewise, the distribution of the variable indicates that a small group of workers took off for a relatively long period of time. These data on time off the job indicate that U.S. workers did not, on the average, take very much sick leave, regardless of its availability. In any one year, a relatively small group of workers would benefit most from job guarantees for absence from illness.

To estimate the costs of illness we compared those employed women or men under age 55 who experienced 50 or more hours off the job due to illness (their own or others') to those who experienced less absence. For convenience, those with more than 50 hours off the job are referred to as the 'ill' group and those with 50 or fewer hours as the 'well' group, although this terminology is less than accurate because absence due to the illness of others is also included. The 50 hour figure is used since it is more than the average (40 hours) but still low enough so that the sample size for the 'ill' group would not be so small as to produce idiosyncratic findings.

Table 10

Weeks Lost Due to Illness In 1983 By Race and Gender

	Own Illness	Others' Illness
	Mean (standard deviation)	Mean (standard deviation)
White Women (N = 2,343)	0.71 (2.815)	0.23 (0.863)
Black Women (N = 1,321)	0.94 (2.907)	0.26 (0.972)
White Men (N = 2,090)	0.86 (2.815)	0.20 (1.370)
Black Men (N = 839)	1.64 (5.576)	0.11 (0.036)
Total (N = 6,593)	0.82 (2.992)	0.21 (1.096)

Source: Institute for Women's Policy Research tabulations from the 1984 interview wave of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan.

What do the results show? In Chart 6 the most striking finding is that for workers in the ill group the losses in annual earnings grew in the two years following more than 50 hours off the job due to illness. As Tables 11 and 12 show, these annual earnings losses, for both women and men, stemmed from lower hourly wages, more hours unemployed, and more hours out of the labor force (which result in fewer hours worked). Assuming that severe illness is limited to a relatively small group of the working population, this study shows that workers who suffered lengthy illness experienced significant economic

Table 11

Estimated Losses to Employed Women under Age 55 Who Were Off the Job for More than 50 Hours for Illness Compared to Those Who Were Not

	Costs Per Worker			
	Absence Year	1 Year After Absence Year	2 Years After Absence Year	All Years
Earnings (1986 dollars)				
Difference in Hourly Wage Rate	$ – 0.45	$ – 0.13	$ – 0.60	$ – 0.28
Difference in Annual Earnings	$ – 304.00	$ – 688.00	$ – 1,858.00	$ – 2,850.00
Hours Lost				
Difference in Unemployment Hours	– 38.9	5.2	47.5	13.8
Difference in Out of Labor Force Hours	– 6.0	27.4	78.4	99.8
Total Hours Lost	– 44.9	32.6	125.9	113.6

INTERPRETATION: Employed women under age 55 who experienced above-average absence for illness had lower hourly wage rates and experienced more unemployment and hours out of the labor force compared to those with less absence.

Note: Losses to workers with above-average absence for illness are compared to those of workers with less absence.

Source: Institute for Women's Policy Research calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan (see Appendix Table 6).

losses in the form of *lost* wages, annual earnings, and hours of employment.

Gender Differences

In the year prior to illness, no significant differences between the economic conditions of the two groups of women existed: the well group earned $13,522 and the ill group earned $13,476. Nor were significant differences in the age distribution of these two groups apparent. The median age for both groups was early to mid thirties. Absence from work for illness resulted in substantial divergence of the economic circumstances between the two groups of women (Table 11). In the absence year, those with more than 50 hours off the job earned $304 less, probably as a result of their significantly lower annual hours of work. The ill group had fewer hours of unemployment than did the well group, possibly indicating that many in the ill group did not qualify for unemployment compensation and/or were not able to work. This possibility seems likely as indicated by the low value of income assistance payments (including unemployment insurance) in the absence year. Two years later, the 'ill' group earned significantly less ($1,858), had significantly lower wages (60 cents less per hour), and suffered an additional 48 hours of unemployment and 78 hours out of the labor force. Whereas women's earnings losses from child bearing and rearing diminished over time, losses from absence due to illness grew larger.

Table 12

Estimated Losses to Employed Men under Age 55 Who Were Off The Job for More than 50 Hours for Illness Compared to Those Who Were Not

	Costs per Worker			
	Absence Year	1 Year After Absence Year	2 Years After Absence Year	All Years
Earnings (1986 dollars)				
Difference in Hourly Wage Rate	$ 0.27	$ – 0.66	$ – 1.08	$ – 1.47
Difference in Annual Earnings	$ – 967.00	$ – 1,764.00	$ – 3,554.00	$ – 6,285.00
Hours Lost				
Difference in Unemployment Hours	– 12.2	15.3	87.8	90.9
Difference in Out of Labor Force Hours	– 6.4	72.8	121.6	188.0
Total Hours Lost	-18.6	88.1	209.4	278.9

INTERPRETATION: Employed men under age 55 who experienced above-average absence for illness had lower hourly wage rates and experienced more unemployment and hours out of the labor force compared to those with less absence.

Note: Losses to workers with above-average absence for illness are compared to those of workers with less absence.

Source: Institute for Women's Policy Research calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan (see Appendix Table 7).

In contrast to women, there were significant differences in the economic circumstances of the ill and the well groups of men in the year prior to absence. Men who were off the job for more than 50 hours in the absence year earned less than $27,000 (in 1986 dollars), while the well group of men earned more than $29,000 in the pre-absence year. As Appendix Table 7 indicates, this income difference was a result of the ill group's significantly lower wages (64 cents per hour less) and significantly fewer hours of work (101 fewer hours). These differences in earnings continued to magnify in the post-absence years at an increasing rate (see Table 12). Like the women, in the year of absence, the ill men had fewer hours of unemployment than the well group, possibly because those in the ill group were too ill to look for work or did not qualify for unemployment insurance. By the year after the absence for illness, there was a significant decline in hours of labor force participation by the ill group. By two years after, the ill men were earning $3,500 a year less because their wage rate declined by an additional $1.08 per hour, their hours of work had declined by an additional 200 hours, and their additional hours of unemployment (88) became significant. As with women, these differences magnified during the two years following the absence; the disparities in annual earnings more than trebled.

Race Differences

When we compare black women who missed more than 50 hours of work due to illness to white women in the same situation, it becomes apparent that black women suffered additional losses that also increased over time. Black women had significantly lower annual earnings ($1,836 less in 1986 dollars) in the year prior to the illness than did white women (see Appendix Table 8). This disparity was primarily due to their significantly lower hourly wages ($1.20 less per hour) and partly due to more hours of unemployment and out of the labor force. In the absence year the annual earnings disparity continued to grow (though the hourly wage gap partially closed), and black women's hours of unemployment increased. The disparity in wages increased by 14 percent (17 cents per hour) by two years after the absence year.

The most striking losses black women suffered as a result of illness were the increased hours of unemployment and and the decreased hours of work (see Table 13). Over the course of the illness and two post-illness years, black women suffered an additional 451 hours (11.3 weeks) of unemployment and 547 fewer hours (or nearly fourteen fewer weeks) of work compared to white women. It is also interesting to note that black women's time out of the labor force fell relative to white women, indicating they could not afford not to work–they spent most of their reduced work time not out of the labor force but looking for work.

Estimating Cost of Lack of Medical Leave

- Based on 7000 representative families in the Panel Study on Income Dynamics at the University of Michigan
- Included male and female workers under age 55 who had one year out of four in which they were absent 50 or more hours from work due to illness of self or others; in the year before the absence, each worker worked 600 hours or more
- No direct comparison of those with and without leave for illness is possible
- Proxied effects of lack of leave by examining additional unemployment experienced by ill workers compared to well workers and cumulated effects for all workers
- Valued additional hours of unemployment at the average hourly wage to estimate cost of lack of leave to workers: $12.2 billion
- Compared average unemployment insurance benefit of ill workers to well workers to estimate cost of lack of leave to taxpayers: $4.3 billion

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Racism exacerbated the economic costs of illness to men, just as it did for women. The significant $9,100 difference in annual earnings between black and white men in the year prior to illness increased to more than $12,000 two years after the illness (see Appendix Table 9). The disparity in hourly wages increased by an additional 34 percent ($1.37) and the disparity between black and white men's hours of work and hours out of the labor force, which was not significantly different in the year prior to illness, increased substantially. Over the three years of illness and post-illness, black men lost 995 hours (nearly 25 weeks – or 6 months) more than white men, much of which was experienced as increased hours out of the labor force rather than as unemployment. (Of course, out-of-labor-force hours are sometimes considered "hidden" unemployment, particularly when workers are discouraged from job seeking because they expect to find no work.)

In Chart 7, annual earnings differences for black and white workers who experienced more than 50 hours off the job due to illness are shown for both women and men. Overall, the average black male worker with illness lost $6,226 more in earnings than the average ill white male worker (67 percent of pre-illness earnings for the black male worker compared to 23 percent for the white male worker). The average black female worker with illness lost $650 more in earnings than the average ill white female

Table 13

Estimated Additional Costs to Black Workers under Age 55 Who Were Off the Job for More than 50 Hours for Illness Compared to White Workers

	Cost per Worker			
	Absence Year	1 Year After Absence Year	2 Years After Absence Year	All Years
Annual Hours Lost: Difference in Hours Lost Between Black and White Women				
Unemployment Hours	40.6	152.9	257.4	450.9
Hours Out of Labor Force	23.5	– 97.3	– 213.8	– 287.6
Hours of Work	– 202.5	– 208.6	– 136.3	– 547.4
Annual Hours Lost: Difference in Hours Lost Between Black and White Men				
Unemployment Hours	– 18.1	32.7	5.7	20.3
Hours Out of Labor Force	1.6	186.0	423.1	610.7
Hours of Work	– 186.2	– 306.5	– 502.7	– 995.4

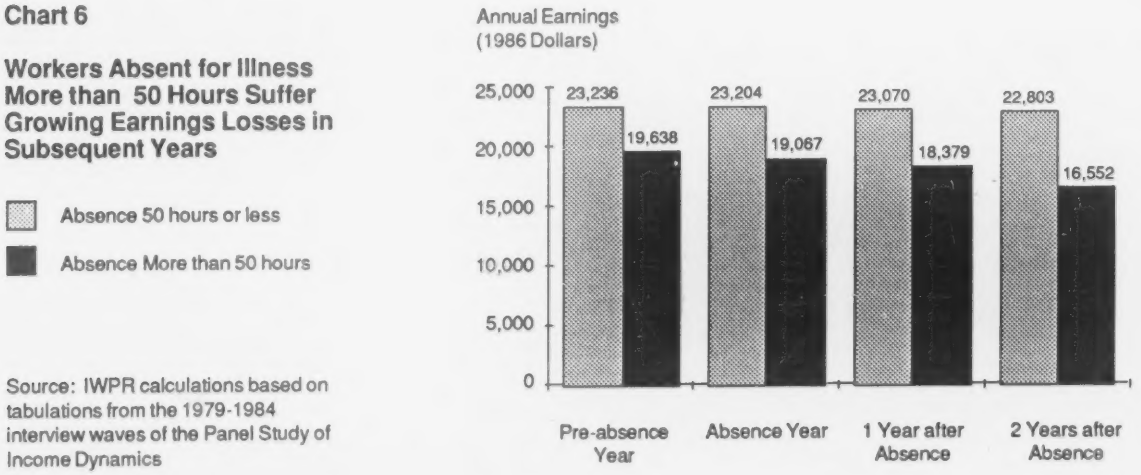
INTERPRETATION: Black workers, both men and women, who experienced above-average absence for illness lost more hours of work than did whites with comparable absences.

Note: Losses to black workers with above-average absence for illness are compared to losses for white workers with above-average absence for illnes.

Source: Institute for Women's Policy Research, based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan (see Appendix Tables 8 and 9).

Chart 6

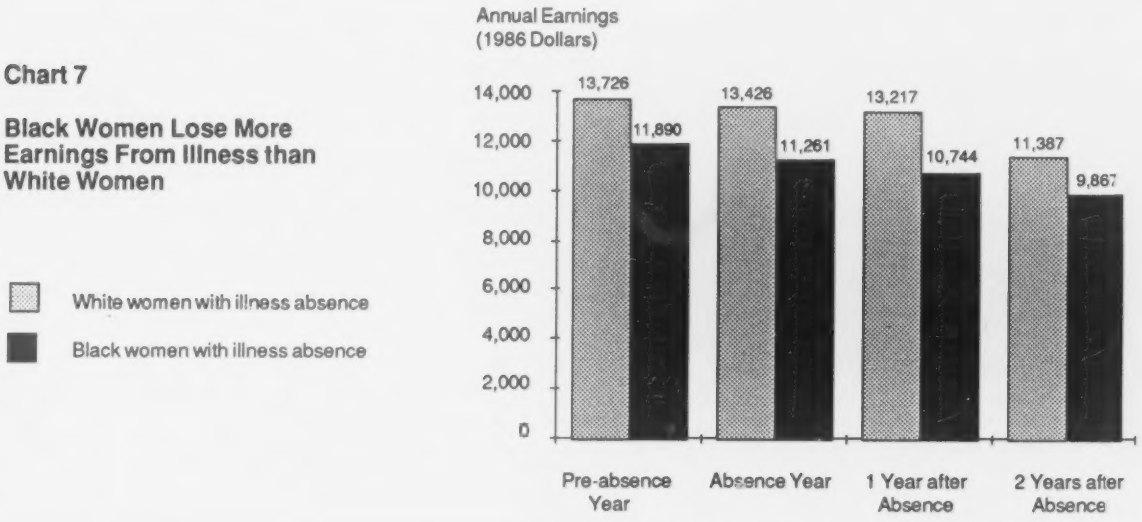
Workers Absent for Illness More than 50 Hours Suffer Growing Earnings Losses in Subsequent Years



Source: IWPR calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics

Chart 7

Black Women Lose More Earnings From Illness than White Women



(32 percent compared to 23 percent).

These findings show that although black and white women and black and white men suffered as a result of absence due to illness, the costs to black women and men were higher. The extremely high costs they bore because of increased hours of unemployment and hours out the labor force were a result at least in part of the lack of rights to reemployment after illness. Proposed legislation to provide the right to return to one's job after illness would benefit black workers especially.

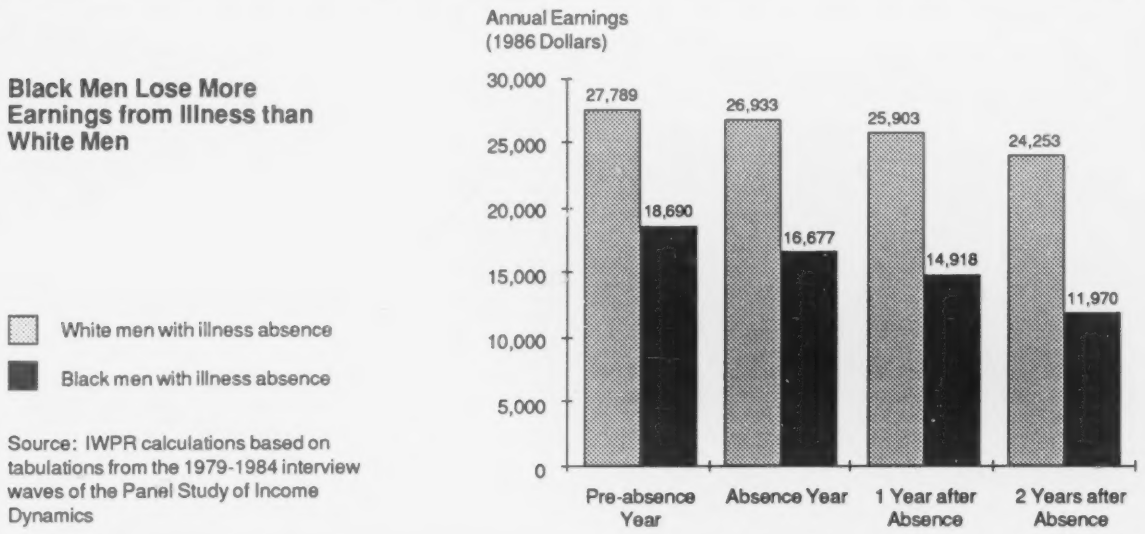
Societal Costs

Declines in annual earnings, hourly wage rates, and hours of employment may appear to be only individual losses, reflecting the reduced ability of a man or a woman to earn a decent income in the face of illness, and subsequent job termination and unemployment. When aggregated and generalized to the entire population of U.S. workers under age 55, as in Table 14, the magnitude of the loss can be more fully appreciated. Assuming that the same portion of the employed U.S. workforce is absent due to illness for more than 50 hours as in the PSID sample and with the same outcome, we estimate the annual loss in earnings at $100 billion . This estimate includes earnings losses of those absent in the current year plus the losses in the current year of those absent due to illness the year before, and the current losses of those absent due to illness two years ago. Again, total losses would be even larger if current losses due to absence because of illness three, four, and more years ago were known. These lost earnings also represent the loss in output that occurs because trained and experienced workers are not at work.

Costs to Taxpayers

The estimated financial cost to taxpayers of absence due to illness is shown in Table 15. The estimate is based on the additional transfer income from public programs received by workers who have experienced illness that caused them to miss more than 50 hours of work. Assuming that all workers faced the same extent of illness and the same outcome as workers in the PSID sample, the annual cost to taxpayers would be $7.5 billion. This estimate cumulates the effects of those who were ill in the current year, the year before, and the year before that. As with childbirth, the actual annual cost is likely to be greater, because those who were ill three and more years ago are still likely to be suffering losses in the current year, with which taxpayers are still assisting.

Black Men Lose More Earnings from Illness than White Men



Source: IWPR calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics

Costs Attributable to Lack of Job-Protected Leave

That a large portion of these lost earnings and taxpayer costs are attributable to workers' lack of rights to return to their jobs after an illness is suggested by the increased unemployment experienced by both women and men. Women and men who had longer-than-average absences due to illness experienced more than 1.5 times the unemployment of those who had no or shorter absences. Women with illness-related absence experienced 6 weeks of unemployment in the two years following the absence compared to 4 weeks for well women, while ill men had 8 weeks of unemployment and well men had 5 weeks.

A dollar value can be assigned to the additional unemployment experienced by ill workers by using their hourly wage rate prior to the illness. The average ill worker (absent for mor than 50 hours) had 59 additional hours of unemployment during the period of study (compared to those who missed 50 or fewer hours) that can be valued at $583 per worker, which, aggregated to all workers, amounts to $12.2 billion annually. Additional taxpayer assistance, due to the extra unemployment only, averages $206 per ill worker, or $4.3 billion when aggregated to all workers who were absent more than 50 hours for illness. These workers are looking for work and unable to find it, and their skills and abilities are going unused. Clearly both employers and society as well as the individuals involved lose from their unemployment.

Costs of Eldercare

Unfortunately, the PSID does not include any questions about the availability of time off to care for elderly relatives, nor does it ask about actual time taken off the job to provide care. As a result of the lack of information, comparison of the economic consequences of lost income, wages and hours of work between those with eldercare responsibilities and those without them is not possible. Fortunately, in the last few years a variety of research studies on eldercare have emerged. These have likely been stimulated by the unprecedented growth in the number of elderly, particularly those over age 85; the lack of non-employed women to care for them; the increases in Medicare costs; and the increasing visi-

Table 14

Estimated Earnings Losses to Workers under Age 55 Who Were Off the Job for More than 50 Hours for Illness (Compared to Workers Who Were Off the Job for Fewer than 50 Hours)

	Earnings Loss per Worker	Earnings Losses for All Workers with Absence
Earnings Lost from Absence Due to Illness that Occurred:	(1986 dollars)	(1986 dollars)
Current Year	$ −646	$ −13,479,000,000
Prior Year	−1,311	−27,372,000,000
Two Years Before	−2,839	−59,268,000,000
Current Annual Losses	$ −4,796	$ −100,119,000,000

INTERPRETATION: Workers under age 55 lose $100 billion in earnings annually for above-average absence due to illness.

Note: The estimates of earnings loss per worker shown here were derived from weighted averages of the earnings loss as computed separately for male and female workers (see Appendix Tables 6 and 7). Earnings losses to workers (women and men) with more than 50 hours of absence for illness were compared to those of workers with less absence; differences shown are net of pre-absence year differences between the two groups.

Source: Institute for Women's Policy Research calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan (see Appendix Tables 6 and 7). Based on the experience of the PSID sample, IWPR estimates that in 1985, 20,875,643 U.S. workers were out of the labor force for more than 50 hours due to illness.

Table 15

Estimated Financial Cost to Taxpayers of Workers under Age 55 Who Were Off the Job For More than 50 Hours Due to Illness

	Income Assistance Payments per Worker	Income Assistance Payments for All Workers with Absence
Income Assistance Payments for Absence Due to Illness that Occurred:	(1986 dollars)	(1986 dollars)
Current year	$ 17	$ 355,000,000
Prior Year	55	1,148,000,000
Two Years Before	288	6,012,000,000
Current Annual Cost	$ 360	$ 7,515,000,000

INTERPRETATION: Workers under age 55 who had above-average absence due to illness cost U.S. taxpayers $7.5 billion in income assistance payments annually.

Note: The estimates of income assistance payments per worker shown here were derived from weighted averages of the payments as computed separately for male and female workers (see Appendix Tables 6 and 7). Payments to workers (women and men) with more than 50 hours of absence for illness were compared to those of workers with less absence; differences shown are net of pre-absence year differences between the two groups.

Source: Institute for Women's Policy Research calculations based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan (see Appendix Tables 6 and 7). Based on the experience of the PSID sample, IWPR estimates that in 1985, 20,875,643 workers were off the job more than 50 hours due to illness.

bility of advocacy organizations for the elderly. Studies have raised questions about who will care for the aging U.S. population and at what costs to working men and women, taxpayers, employers and society as a whole. The most relevant of these studies are summarized in Appendix 2.

These studies estimate that there are approximately 4.5 to 6.5 million elderly persons who can remain in the community only with assistance. According to the 1982 National Long-Term Care Survey, there were approximately 2.2 million family caregivers providing unpaid assistance to the elderly (Stone et al., 1982). The majority of these caregivers were women (estimates range from 57 to 72 percent)–wives, daughters, and daughters-in-law.

Care of the frail elderly is another activity for which women (and some men) pay the costs in unpaid labor, foregone wages, and missed opportunities. According to a recent study by the National Association of Area Agencies on Aging (1987), 77 percent of the women interviewed experienced work and caregiving conflicts; 31 percent missed opportunities to work overtime; 18 percent missed important work meetings; and 21 percent considered quitting

Table 16

Estimated Annual Costs of Caring for Elderly Dependents (1986 Dollars)

Method	Number of Caregivers	Estimated Cost in Lost Earnings	Estimated Cost in Increased Income Assistance Payments	Estimated Value of Caretaking Time
PSID-based				
Men (All ages)	406,560	$2,550,000,000	$185,000,000	
Women (All ages)	792,000	2,260,000,000	195,000,000	
		$4,810,000,000	$380,000,000	
HHS-based				
Men (45-64 years old)	258,720			$4,179,000,000
Women (45-64 years old)	665,280			2,875,000,000
				$7,054,000,000

Source: IWPR calculations. PSID-based is based on tabulations from the 1979-1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan, coupled with estimates of the number of caregivers from the Informal Caregivers Survey, a component of the 1982 Long-Term Care Survey, conducted by the U.S. Department of Health and Human Services. HHS-based estimate also uses data from the Informal Caregivers Survey, coupled with hourly wage data based on annual income for full-time, year-round workers, *Statistical Abstract of the United States, 1987.*

their jobs. These women missed 5.4 days of work per year in addition to the 15.9 hours per week outside work time they routinely spent caring for their elderly relatives. (This 15.9 hour estimate appears to be relatively reliable based on the findings of the other studies cited in Appendix 2).

The additional 5.4 days of work missed by these women due to eldercare plus the 4.5 days a year in sick leave taken by the average woman worker, undoubtedly pushes women with eldercare responsibilities into the category of workers who missed more than 50 hours off the job due to illness of self or others. This assumption is validated by the finding that 67 percent of these women exhausted all their leave benefits (National Association of Area Agencies, 1987). These women are likely therefore to experience at least the same amount of losses in annual income, wages and hours of work as do the ill population discussed above.

Employed women, we estimate, lose approximately $2.26 billion in annual earnings and employed men approximately $2.55 billion, for a total of approximately $4.81 billion in annual earnings losses as a result of caring for their elderly relatives. We arrived at these estimates by using data from the Informal Caregivers Survey, a part of the 1982 National Long-Term Care Survey. These data indicated that in 1982, 1.58 million women were providing eldercare, an estimated 50 percent of whom were in the labor force, and 616,000 men were also involved in this activity, 66 percent of whom were estimated to be in the labor force. Applying the income losses from the ill group in the PSID data, we calculated losses of $4.8 billion (see Table 16). Not surprisingly, men's losses were higher as a result of their higher wages, even though they represented only one-third of the employed caregivers.

Likewise, if the additional public income assistance payments to these caregivers were equal to those received by the ill group ($360 per person in the year of absence and the following two years), the additional costs to taxpayers would be approximately $380 million annually.

Although we cannot directly calculate all the costs to caregivers for the elderly, including time spent that is in addition to or other than that which

causes lost hours of employment, a method for estimating the costs of this additional unpaid work exists. This method is to use the caregiver's wage earned for paid hours of work to estimate a dollar value for their unpaid hours of work, both those that represent missed paid hours and those that represent missed leisure hours. This method of valuing unpaid work, like the above method, assumes that the caregiving activities of higher paid workers are worth more than the caregiving activities of lower paid workers. Hence in Table 16, men's caregiving activities are valued at a higher rate than women's. Although this assumption is unacceptable, the dollar value of unpaid work done by family caregivers to the elderly calculated by this method is more than $7 billion. This $7 billion figure can be regarded as the economic cost to caregivers; it can also be seen as the savings to employers, taxpayers, and society of the unpaid work provided primarily by women.

Legislation that would ensure that women and men who must be absent from work have the right to take additional unpaid leave when necessary and return to their jobs would likely reduce lost earnings because it would likely reduce their unemployment and wage loss. The cost of providing, on an unpaid basis, the socially necessary work of caring for the elderly would thus be ameliorated.

Interpreting the Findings

The results of this study show that American workers lose enormous amounts in earnings from absences due to their own illness, to childbirth or adoption, or to caring for elderly parents. Not surprisingly, women, rather than men, bear the disproportionate share of childbirth costs. Childbirth and adoption cost American women $31 billion annually in lost earnings. Race differences are significant in both childbirth and illness because black workers suffer more unemployment as a result of these events. Women and men who are absent for illness for more than 6.25 days (50 hours) lose $100 billion in earnings. And those who care for elderly parents, mostly women, lose $4.8 billion in earnings (assuming the same loss as for illness); the value of their time spent in care-taking amounts to $7 billion annually. These costs cannot be added together because the categories are overlapping: women who gave birth probably also missed more than six days due to illness and some who cared for elderly parents were also ill themselves. Compared to a total wage bill in the U.S. economy of approximately $2.1 trillion in 1986 (not including benefits), these losses are not trivial.

Moreover, the losses in earnings American workers experience when they are absent for illness or family care are not fully made up by currently available sick pay, insurance benefits, or public income assistance programs. Workers and their families must live on reduced incomes when illness strikes or care of dependents becomes necessary.

Currently proposed legislation, because it provides for only unpaid leave, would not fully eliminate or compensate for these losses, but it would make a difference. Only in the case of parental/maternity leave are we able to directly estimate what effect the proposed legislation might have. By comparing those who have some type of leave for childbirth or adoption to those who have no leave, we estimate the cost of the *current lack* of leave to women, their families, and taxpayers. By inference, this cost would be eliminated, or at least substantially reduced, if leave were guaranteed to all workers. That cost is $607 million in lost earnings to women without leave and $108 million in additional income assistance payments to such women. Although women workers would continue to lose income because the leave provided would be unpaid, approximately $715 million in savings would occur because workers would be able to go back to their former jobs. As a result they would suffer less unemployment and wage loss

than they do now.

While we cannot directly estimate the effect re-employment rights would have on workers who are absent because of their own or others' illness, we do know that the savings to workers and taxpayers would likely be much larger than those from providing parental leave. First, there are many more workers who are absent because of their own or others' illness than there are workers absent with new children. Second, losses increase each year after an absence due to illness. Third, these workers experience more than 1.5 times the unemployment of those who have less absence. Re-employment rights would probably eliminate much of this unemployment and mitigate some of the resulting earnings losses, particularly in the years subsequent to the illness year. By assigning a value to this added unemployment, we estimate that at least $12 billion in worker losses and about $4.3 billion in taxpayer costs would be mitigated by the legislation. The effects of re-employment rights for illness will depend heavily on which illness absences qualify for protection under the legislation. (Our estimate of the number of workers who were absent from work for more than 50 hours annually, about 21 million workers, is much larger than the number estimated by the GAO (Gainer, 1989) for more restricted illness, defined as 31 or more days bedrest, which is about 743,000 workers due to their own illness plus 72,000 workers due to illness of a child that lasts at least 31 days.) Surprisingly, the mild definition of illness we used (much of the absence measured here is probably *not* due to serious illness) nevertheless resulted in very serious earnings losses which increased in the two subsequent years.

Costs of Childbirth, Illness, and Lack of Job-protected Leave

Costs of:	Earnings Lost to Workers	Cost to Taxpayers
Childbirth or adoption	$ 31 billion	$1.2 billion
Lack of parental leave	$607 million	$108 million
Absence for illness	$100 billion	$7.5 billion
Lack of temporary medical leave	$12 billion	$4.3 billion

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Similarly, we cannot directly estimate the effect re-employment rights would have on the many workers who spend substantial time caring for elderly parents. More workers have elderly parents than have new children. But the amount of care they require during normal working hours is highly variable and the amount of working time actually missed for this reason is not known. An estimated 2.2 million women and men miss at least as much time as the 'ill' workers. GAO's estimate of those workers with bedridden parents is much smaller, 165,000 (GAO, 1989). While a specific dollar amount for the value of proposed legislation (in terms of earnings losses mitigated) is hard to estimate for this provision, it is likely to be substantial. Moreover, as the baby boomers age, so do their parents. The number of old elderly, those over 85, will grow rapidly in the next several decades, and the baby boom generation of workers will likely spend substantial time caring for them.

Like all estimates, our estimates should be used with caution. There is no *definitive* information on the questions of costs and benefits of leave, because there is no data specifically collected from a large enough sample to answer these questions. Our estimates of the costs of current arrangements to workers and taxpayers utilize available data from the Panel Study on Income Dynamics, a sample of some 7,000 households. The sample of births we considered was 610 (and 5,141 nonbirths), and the sample of workers with absence due to illness of more than 50 hours was 1,543 (and 10,875 with 50 or fewer hours). The PSID is nationally representative, how-

Table 17

U.S. General Accounting Office and Institute for Women's Policy Research Cost Estimates

(In Millions of Dollars)

Provisions of Family and Medical Leave Act	GAO Estimates: Costs to Employers Senate Version (20 or more employees)	GAO Estimates: Costs to Employers House Version (35 or more employees)	IWPR Estimates: Costs of Lack of Leave to Workers	IWPR Estimates: Costs of Lack of Leave to Taxpayers	IWPR Estimates: Costs of Events to Workers	IWPR Estimates: Costs of Events to Taxpayers
Birth or Adoption of Child	$ 117	$ 102	$ 607	$ 108	$ 31,000	$ 1,200
Care for a Seriously Ill Child	11	11	NA	NA	NA	NA
Care for a Seriously Ill Parent	42	38	NA	NA	4,800	380
Temporary Medical Leave	66	61	12,200	4,300	100,000	7,500
Total Annual Costs	$ 236	$ 212	$ 12,200 +	$ 4,300 +	$ 100,000 +	$ 7,500 +

Source: Institute for Women's PolicyResearch calculations and U.S.General Accounting Office, *Parental Leave: Estimated Costs of H.R. 925, The Family and Medical Leave Act of 1987,* November 1987, and *GAO's Estimate of the Costs of the Parental and Medical Leave Act of 1987 (S. 249),* October, 1987.

ever, and the reliability of its income measures is considered to be high. The differences we found and report here are statistically significant (with the sometimes exception of income assistance payments); that is, they are unlikely to have occurred by chance. Our method is fairly simple, based as it is on comparisons between groups who did and who did not experience the event in question. In all comparisons of this kind, the groups may differ for reasons other than the occurrence of the event being studied, and other unknown events may occur along with the event in question. Nevertheless, such comparisons can yield useful information. For example, in our sample, those women with parental/maternity leave who experienced childbirth were generally better off than those without leave who experienced childbirth. They had higher wages, higher annual earnings, and less unemployment in the year before the birth. Their labor market success post-birth might not be due solely or even mainly to the fact they had parental leave. Yet we think it likely is due to parental leave and we use this difference to estimate the effects of not having parental leave. Our judgment is based on the fact that whatever advantages these women have post-birth they also have pre-birth, because the maximum time-period any woman is in the study is four years, a period in which other variables are not likely to change substantially. And our estimates take pre-birth differences into account.

If anything, our estimates are low. They are underestimates for several reasons. First, as noted above, the estimates of costs of lack of parental leave are likely to be low because the proportion reporting no leave is small (compared to other sources); some women without leave who returned to work subsequently could not be included; only the effects of one birth in a four-year period are included; and only the effects one or two years beyond birth are included,

even though the effects likely continue for several more years. Second, the estimates of the losses due to births and adoptions are low for some of the same reasons (estimates were based on one birth per woman only; post-birth years were limited; and the number of births or adoptions to working women may be low–we used 2.145 million, while GAO used 2.4 million). Third, our estimates for illness are low because workers aged 55 and over, who are more likely to be ill, were excluded (so as not to be confounded with early retirements), although our illness definition is not strict. Fourth, our estimates for eldercare are likewise low because we estimated effects for only a single event of eldercare (more than 50 hours off the job in one year) and in the two following years, while eldercare is not a single year event whose effects are limited to two subsequent years.

A Note on Costs to Business

The data we used to estimate costs to women, their families, and taxpayers do not allow us to estimate costs to business. As noted above, our review of other studies on costs to business showed that little direct information is available on the costs businesses *currently* incur to provide parental leave to their employees. At best, some information is available about what proportion of employers currently provide some type of parental or maternity leave, but very little about how many workers actually use it and at what cost. In conducting a recent study of *hypothetical* costs to businesses of proposed leave legislation, the U.S. General Accounting Office (GAO) conducted field interviews with 80 businesses in two metropolitan labor markets, Detroit, Michigan, and Charleston, South Carolina, to find out how employers currently adjust to workers' absences.

GAO found that fewer than one in three absent workers is actually replaced, that the cost of the replacement workers is similar to or less than the cost of the workers replaced, and that employers do not believe that a significant loss of output occurs. "In addition," according to the GAO, "an employer's savings in worker salary and benefits for those on unpaid leave exceeds replacement costs and productivity losses" (U.S. GAO, 1987). Consequently, the GAO found that the main cost of the proposed legislation to employers would be the cost of carrying health insurance for workers on leave.

Table 17 summarizes GAO's estimates of costs to business for both the revised House and Senate versions of the proposed legislation, and compares these to IWPR's estimates of costs to workers. The difference between the two GAO estimates stems primarily from the differences in coverage and eligibility between the two versions. The Senate version would cover employers of 20 or more workers and cost $236 million, while the House version would (after three years) cover employers of 35 or more workers and cost $212 million (in the first three years it would cover only employers of 50 or more workers and would cost $188 million annually).

GAO's estimate of $102 million in annual costs to business of providing the parental leave outlined in the House version of the proposed legislation (and $117 million in the Senate version) can be compared to our estimate of $607 million lost annually to working women and their families because of the lack of parental and related leave. Likewise GAO's estimate of $61 million in annual costs to business of providing temporary medical leave in the proposed House legislation ($66 million in the Senate) can be compared to IWPR's estimate of $12.2 billion in earnings lost to workers because of unemployment following an absence for illness.

The total cost to business of all provisions of this legislation can also be compared to the costs of fringe benefits that employers currently provide. As noted above (page 22) in Table 6, Panel B, estimates of the proportion of U.S. workers currently receiving vari-

ous leave-related benefits vary considerably, but they can be used to provide a base for estimating a range of fringe benefit costs. Using U.S. Chamber of Commerce (1986) data on the cost per employee of providing sick leave and short-and long-term disability leaves, we estimate that U.S. employers spend from $12.5 billion to $29 billion annually, depending on the extent of coverage of employees. Given the cost of these leave-related benefits employers already provide, the cost of the more expensive version of the proposed legislation adds an additional two percent at most ($236 million divided by $12.5 billion).

Employers institute sick and disability leave policies because it is cost effective to do so. Providing leave may help employers compete, through hiring and retaining workers. Leave policies also encourage longevity and reduce turnover, allowing employers to benefit from the skills, experience, and institutional knowledge that workers with long job tenure have gained. According to the 1985 U.S. Chamber of Commerce *Employee Benefits Survey*, of the 50 percent of responding employers who reported that they had some type of formal parental leave plan (most often integrated into sick and annual leave policies), 61 percent said they have it because it improves their ability to recruit and retain workers (only 11 percent said they have it because of collective bargaining). Obviously, there are economic benefits that accrue to employers from retaining absent workers and taking back former workers after absences–over and above the costs. Otherwise they would not do it.

Those employers who do not already provide leave may therefore find that they will gain economically from providing the required leave. While providing leave is not costless, as GAO notes, the costs are not high. The cost of carrying health insurance–the only significant identifiable cost of the proposed legislation–may be more than made up by productivity gains associated with easier recruitment, lower turnover, and increased longevity. Some employers, however, base their labor policies on a high turnover, low wage strategy; they judge that skills and experience on the job matter little to their operation. The cost of the proposed legislation would probably not be offset for them. Nevertheless, society might judge that requiring them to provide leave meets a public purpose.

To some extent, the proposed legislation requires employers to compensate workers for some of their current costs of parenting and illness. Employers would be required to take on the costs of maintaining their health insurance (if they carry it) and holding their jobs for them. This cost *is* a new financial cost to employers imposed by the bill, but it is not, as we have seen, a new economic cost to women, their families, taxpayers, or society. Women and their families, and society at large, are already bearing these costs now. The proposed legislation would *redistribute* some of these costs, a very small portion, to employers.

Responses by policymakers to the dilemnas faced by workers who must both work and care for themselves and their families have been slow and ambivalent at all levels of government and within private industry. Currently workers are experiencing large earnings losses from the lack of job-protected family and medical leave, losses that are in addition to those necessitated by the absences themselves. Not having the right to return to one's job imposes added, unnecessary economic losses.

As more women work more hours and as the workforce ages, the need for policies that protect male and female workers from job loss due to absence for family care and illness continues to grow. The research reported here shows that the benefits to workers of enacting such policies far outweigh the costs that businesses would incur. Society as a whole stands to benefit from legislation guaranteeing the right of every worker to return to his or her job after a brief absence for family or medical care.

The Policy Implications

Does the United States Need a National Policy?

Except where regulated by the states or covered by collective bargaining, an employer is currently free to provide no sick leave or temporary disability and to terminate pregnant or sick workers at will. Workers do not choose to become ill, or to have elderly parents requiring care, or even to have children. While childbirth is often regarded as a personal choice, it, too is a necessity if society is to survive. Consequently, the substantial losses ill or pregnant workers experience, which have been estimated in this report, should be regarded as compelled losses (rather than as foregone opportunity costs–the label many economists would attach to them). Our findings indicate that in the absence of a comprehensive national policy, workers, and especially women workers, bear a disproportionate share of these socially necessary costs.

The costs, and their importance to families, can also be expected to grow over the next several decades. As more and more women enter and remain in the labor market, the earnings foregone by the average working woman are increasingly important to herself and to her household. Moreover, because the

significance of women's employment to the economy is growing, the productivity lost when women must be absent from their jobs is ever more costly. Bearing and raising the next generation of America's citizens entails substantial unnecessary costs to parents, particularly to mothers who must forego income while simultaneously increasing the time spent in the unpaid labor of child care and house work. And as the population of the United States ages, family members, and especially women, are spending additional hours caring for the frail elderly often without any social supports. The "double day" of working women becomes more common as more women both work outside the home and continue family care.

Although the need for a remedy is growing, both government and business policies have been slow and ambivalent in responding to the feminization of the work force, an aging population, and the changing relations between women and men. Appropriate goals for a comprehensive national leave policy include reducing the costs to workers and their families of dependent care and illness and encouraging a more equitable distribution of the costs between women and men.

In the case of childbirth or adoption, we estimate that those women who did not have some form of leave lost an additional $607 million of earnings compared to those women who had some form of leave. And the lack of parental leave costs taxpayers $108 million annually. We also estimate that the lack of leave for illness-related absence may cost workers $12.2 billion in lost earnings due to unemployment and taxpayers $4.3 billion in the form of additional unemployment insurance benefits. These are costs which would be eliminated or reduced if a national parental and medical leave policy, such as that currently proposed in the House and Senate, were enacted. The estimated costs due to the lack of parental leave alone are far greater than the $236 million that the General Accounting Office estimated it would cost businesses to implement the revised Senate version of the Family and Medical Leave Act (which covers workers in firms with 20 or more workers) for all provisions (parental, dependent care of an ill child or parent, etc.). The revised version of the bill in the House is even less expensive. On grounds of social arithmetic alone, the proposed legislation is cost effective.

Costs and Benefits of Family & Medical Leave

Parental Leave Only

- Costs to business of a national policy:

Senate version	$117 million
House version	$102 million

- Costs to workers of *lack* of national policy: $607 million
- Benefit/cost ratio = 607/102; benefits outweigh costs by 6 to 1

Temporary Medical Leave Only

- Costs to business of a national policy:

Senate version	$66 million
House version	$61 million

- Costs to workers of *lack* of national policy: $12.2 billion
- Benefit/cost ratio = 12,200/61; benefits outweigh costs by 200 to 1

INSTITUTE FOR WOMEN'S POLICY RESEARCH

Nevertheless, the debate over the proposed Family and Medical Leave Act raises important issues that are not totally resolved by social accounting. Are appropriate public purposes served? Is it reasonable as a matter of public policy to establish this minimum labor standard in order to reduce the costs to workers of illness and parenting? Is it reasonable to require employers to refrain from adding costs to society of these inevitable processes? At least three factors suggest that it is reasonable, because such leaves are likely to enhance productivity as well as protect workers from unnecessary losses.

First, when workers are ill or have babies or family crises they must be replaced either temporarily or permanently, as they are now. As the GAO found, except for maintaining health insurance, there is not much reason to believe that requiring employers to replace absent workers temporarily rather than permanently adds to their current costs. GAO found no evidence of increased productivity loss.

Second, employers are aware of the benefits of policies that result in retaining skilled employees. The majority of employers who provide some type of parental leave do so because it improves their ability to recruit and retain workers. Thus many employers already find that these policies are economically sound for their individual businesses. If requiring other employers to return former experienced or trained workers to the job improves their productivity in the long run, as seems likely, then the bill reduces, not increases, their costs.

Third, even if an individual employer can find a productive permanent replacement by terminating the former employee, the employer creates a substantial "external cost" which now falls on society at large. The longer period of unemployment and lower relative wages that returning workers experience when they do not have leave is an *additional* social cost of lost productivity of trained and skilled workers. It also requires subsidies from taxpayers. The proposed legislation's requirements would ensure that employers not create additional economic costs by terminating ill or pregnant workers, thus adding to the inevitable costs of illness, child bearing and eldercare.

A national leave policy would, therefore, serve long-term productivity needs. It would prevent or reduce losses in productivity that are not necessarily measured or noted by employers, productivity losses which are borne by society as a whole. Given our nation's long-term economic problems and the shortage of workers, especially trained and experienced workers, that are anticipated by the year 2000, these are costly losses our nation can ill afford.

In addition to addressing the public purpose of enhanced productivity, the proposed legislation contributes to meeting the social goals of decreasing unjustified inequities between women and men, between those with and without family responsibilities, between blacks and whites, and between the ill and the well. The proposed legislation is written in gender-neutral language. It refers to family members and workers rather than to mothers; it protects those workers requiring medical leave as well as those requiring parental or elderly care leave. It reflects the activities of a coalition of feminist, labor, religious, children's, aging, and disability organizations. The proposed legislation moves beyond the protective legislation that set women workers apart from the rest of the work force and it moves beyond the equal treatment language of the Civil Rights Act. It does this by requiring a new kind of minimum labor standard which assumes that the average worker gets pregnant, cares for young children and elderly parents, and experiences illness. It further assumes that the average adult does not choose between family responsibilities and wage labor, but does both. National family and medical leave policy can be seen as moving beyond protective labor legislation and civil rights to a new, more progressive method for overcoming a gender-based definition of adulthood, of men as workers and women as nurturers, by assuming that the average adult both works and cares for family members.

As we have shown, it is women who do the primary work of caring for new-born babies and of caring for ill family members. Women not only perform the extra housework involved in these activities but bear a disproportionate share of the costs of raising the next generation and maintaining the current one. By guaranteeing a right to their former jobs, the losses women experience when they return to work will be substantially reduced. Women's long-term earnings capacities will be improved, with positive benefits for their income after retirement as well as during their active work lives. In addition, a national

Table 18

Estimates of the Number of Employers and Workers Covered by the Proposed FMLA

Number of Employers, all size firms, United States: 5,701,485

Employed Civilian Labor Force, United States:

	Age 16-45	Age 16-55	Age 16 +
Women	35,709,000	43,510,000	50,353,000
Men	42,087,000	51,924,000	61,124,000

Childbirth and Illness Data for Workers:

Number of Working Women (16-45) Who had Births: 2,321,000
Number of Working Men Whose Wives had Births: 3,236,000

Number of Workers Who had an Absence for Illness of More than 50 Hours (Ages 16-55):

Women	11,443,000
Men	8,464,000

Numbers/Percent of Labor Force/Employers covered under proposed federal FMLA:

	House Version (50 or more employees)		Senate Version (20 or more employees)	
	Number	Percent	Number	Percent
Labor Force				
Women	22,294,000	44	25,442,000	51
Men	31,670,000	52	36,153,000	59
Employers	266,000	5	701,000	12

Estimated number of United States workers likely to use provisions of FMLA (Senate version) annually: 2,402,000

Source: Spalter-Roth, Roberta M., Heidi I. Hartmann, and Sheila Gibbs. *Unnecessary Losses: Costs to Workers in the States of the Lack of Family and Medical Leave*, with "A Review of State Legislation Guaranteeing Jobs for Family or Medical Needs," by Donna Lenhoff and Sharon Stoneback, Women's Legal Defense Fund. Washington, D.C.: Family and Medical Leave Act Coalition, August 1989, p. 10.

leave policy can reduce racial inequities by providing reinstatement rights for black workers who experience higher rates of unemployment and wage loss after birth or illness. The proposed Family and Medical Leave Act will not, of course, reduce these inequities by itself. Additional policies, such as universal access to health insurance and universal day care for children and elders and strengthened equal employment opportunity enforcement and pay equity, are also necessary.

Finally, the proposed legislation coincides with the public purpose of improved well being for workers and their families. In addition to its "womanist" assumption that all adults are both workers and nurturers, the proposed legislation is even more general and universal in its inclusion of temporary medical disabilities. A national leave policy would improve the quality of life for all workers by making leave and job reinstatement equally available to all. A nationally legislated leave policy can be seen as an

attempt to bring some of the benefits of primary sector jobs (the better jobs) to workers in secondary sector jobs (the worse jobs). As a minimum labor standard, it brings to the least well-off workers some of the benefits better off workers already have.

As with any legislation that is the result of compromise, the proposed FMLA is not optimal. Particularly in the current House version, coverage that is limited to employers of 35 or more workers (or 50 or more in the first three years) is far short of universal. Fewer than half of all workers would be covered (see Table 18). Many of those workers who most need the protection would not be covered. Both the House and Senate versions limit coverage to employees with one year on the job and who work more than 20 hours per week (17.5 hours in the Senate version) on a regular schedule. This will further eliminate many who need protection. Moreover, the House version's exclusion of the highest paid 10 percent of an employer's work force also prevents meeting the goal of universality. This provision is likely to penalize high-achieving women and men. Because research shows that what a firm's leadership does is critical in advancing equal employment opportunity, the exclusion of the leadership from the provisions sets a bad example for the work force as a whole. The current versions of the bill also probably fail to provide sufficient protection for workers, since they are limited to 10 weeks of dependent care leave in two years and 15 weeks (13 weeks in the Senate version) of illness leave in one year.

In both versions, the proposed legislation is a minimum standard. It begins the process of helping workers find ways to combine both employment and care giving. It will reduce the unnecessary losses workers and their families now face, but it will not eliminate them.

Implications for the States

Activity on family and medical leave in the states has been substantial in recent years. Seventeen states now require employers to provide maternity or parental leave, of which three also provide for medical leaves. Thirty-two states have considered some form of family or medical leave legislation in 1989 alone, yet 27 states still have no laws guaranteeing any kind of leave for family or medical needs (Spalter-Roth et al., 1989). States continue to have the opportunity to reduce the losses suffered by employees and taxpayers in a variety of ways even if a national policy becomes public law within the coming year. States can test policies that reduce the size of exempted firms to below 35 employees. States can lengthen leave coverage beyond the 10 to 15 weeks allowed for childbirth (or adoption) and illness, respectively. They can extend coverage to care for spouses–one of the most important reasons that workers take time off the job. This is a need not currently covered by either the Senate or House version of the Family and Medical Leave Act. States could also examine the effects for taxpayers, workers and business of implementing a policy of paid leave. More states could require that employers provide temporary disability insurance (which covers pregnancy), as five states now do.

These extensions could both mitigate the weaknesses of the currently proposed national policy and explore the effect of policies that cover a greater share of the enormous income losses workers now suffer due to childbirth and illness. Do such policies result in losses to business or in increased productivity to business and to society? A recent study done by the Institute for Women's Policy Research for 9to5, The National Association of Working Women, examined whether the proportion of small businesses has declined or increased in states that currently have maternity or parental leave policies. This study

found that state level policies did not have a negative effect on small business growth, indeed the findings showed a positive effect, when other factors were held constant (Spalter-Roth and Willoughby, 1988).

Needed Research

This study on the costs to workers, taxpayers, and society of the lack of family and medical leave has uncovered a variety of interesting relationships and findings that deserve further study. For example, we note that although black women who have babies suffer more lost earnings in the birth year than do white women, one and two years after the birth they earn more money as a result of working significantly more hours. Black women work more hours despite suffering more hours of unemployment. The employment/unemployment patterns of new black mothers deserve more detailed examination. We hypothesize that black women have a stronger attachment to the labor force because they are less able to depend on the additional earnings of black men. While childbirth seems to increase the wage and earnings gap between white couples, it does not have this effect on black couples. This is because black men earn substantially less than white men and this gap increases in the post childbirth years, while the gap between black and white women narrows. Additional research is needed to determine why black men suffer these additional losses after the birth of a child and to find out to what extent they substitute child care time for earnings losses.

The findings on the enormity of the effects of illness on earnings are striking and surprising. Absence from work for more than 50 hours results in large income losses due to significant decreases in hourly wages and increases in unemployment. Moreover, these losses grow in the two post-absence years and are worse for black workers than for white workers. The losses of workers with and without job-protected leaves (information that was not available on the PSID) should be compared in order to estimate the benefits of a national leave policy would bring. The existence of job-protected leave could be proxied by determining whether or not a worker returned to the same employer after the absence.

Finally, if a suitable data set can be found, the losses of other racial and ethnic groups besides blacks and whites should be examined.

In addition to extension of the type of research described in this report, which examines losses to workers and taxpayers, further analysis of the costs to employers of providing leave, on both a paid and unpaid basis, should be undertaken. Data on costs to employers and leave usage by workers are particularly inadequate. Improved information most likely requires a federal data collection effort. Even on seemingly simple questions about how many working women give birth and how many return within a given period of time, existing information is woefully inadequate. Fertility data and employment data have, up to the present, been collected without reference to one another, reflecting a basic separation in *thought* about family and work in the federal statistical system. That system needs substantial revision if it is to provide the data necessary to make informed policy in a world where work and family are no longer separate. As this research shows, separation in *policy* results in unnecessary losses. Further research would contribute to reducing these losses.

Notes

1. HR 770 and Senate 345 are before Congress as of this writing; they are indicative as well of the type of legislation being proposed and enacted in the States (see Women's Legal Defense Fund, 1990).

2. This study does not attempt to measure directly losses in productivity that occur because of absence, replacement, or return or workers who leave their jobs because of childbirth, or illness. The greater productivity of experienced workers has, however, been thoroughly explored in scholarly literature. Productivity is generally measured in terms of pay, which typically rises with length of tenure on the job. Thus, employees with greater seniority are generally considered more productive (Blau and Ferber, 1986; Mincer, 1974; Hansen, 1970).

3. Some employers, however, prefer a high turnover work force, perhaps because the jobs require few or readily available skills and keeping costs down is critical in order to compete; these employers are less likely to provide any benefits.

4. For example, our research shows that workers who do not have leave when they give birth experience about 2.6 more weeks of unemployment than those who do have some leave, and that workers who have an absence for illness that is longer than average experience 1.5 times as much unemployment as those with a shorter or no absence due to illness.

5. The sample of workers in the IWPR study included all workers who had one event in any four year period (between and including 1979 and 1984) and comparable workers who had no events during four-year periods. In each case, the four years are the calendar year prior to the event, the calendar year of the event,

the first calendar year after the event, and the second calendar year after the event. In order to increase sample size, those workers who experienced events in 1983 were included in the study, even though data for only the first year (and not the second year) after the event were available. For a thorough discussion of our methodology, see Appendix 1.

6. In estimating financial costs to taxpayers, we did not take into account either tax revenues lost from those not working or revenues gained from replacement workers. The government programs included are unemployment insurance and various forms of welfare including SSI.

7. These estimates are based on comparisons of those who had babies with those who did not and are net of pre-birth-year differences between the two groups.

8. Responses to different questions on the Current Population Survey can be used and interpreted differently to estimate the number of annual births to working women. Use of one method (worked last year and now have a child one year old or under—which can include a child up to 23 months in age) led the GAO to estimate 2.4 million. Use of the other method (working now and gave birth in the prior year) leads to an estimate of 1.5 million. Conversations with Martin O'Connell, Chief, Fertility Branch, U.S. Bureau of the Census confirmed our judgment that one was too high, the other too low. Combined with information from the PSID about the proportion of working women giving birth, we developed a "middle-ground" estimate of 2.145 million.

9. Much of the explanation of the increasing disparities in annual earnings and hours of unemployment between black and white fathers can be found in the occupational distribution shown below. This distribution is based on unweighted data from the 1980 wave of the PSID (see Spalter-Roth, 1984), which overrepresents lower income persons, but does so equally for blacks and whites.

For white husbands, the largest occupational category was managers, professionals and technical workers—jobs that usually have greater income, tenure and promotional opportunities. In contrast, the largest category for black husbands was operatives—jobs likely to be lower-paid and to have shorter career ladders and fewer opportunities for advancement.

1979 Occupational Breakdown of Husbands by Race (In Percents)

	White Husbands	Black Husbands
Managers, Professional and Technical	34	9
Clerical and Sales	10	7
Crafts	29	21
Operatives	19	36
Laborers and Service	8	24
Total	100	100
Number of Cases	(1842)	(804)

Black male operatives, especially those employed as production workers in the automobile, steel or rubber industries, have been particularly hard hit by the economic transformation from manufacturing to services (Harrison and Bluestone, 1988).

Although black fathers experienced income declines and increases in unemployment in the two years after the birth of their child, these decreases were substantially less than those experienced by the matched cohorts of black men who did not have a child during the birth year. (The decrease in annual earnings for black fathers between the pre-birth year and the second year after birth was $1763 in 1986 dollars compared to $3058 for black men whose wives did not give birth during this period.) Thus, just as for whites, new black fathers earned more than those who did not become fathers.

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Women's Legal Defense Fund. *State Laws and Regulations Guaranteeing Employees their Jobs after Family and Medical Leaves.* (chart) Washington, D.C.: Woman's Legal Defense Fund, 1990.

Appendix 1

Methodology

Data Set

The primary data base for this research is the 1979-1984 waves (or interviewing years) of the Panel Study of Income Dynamics (PSID). The PSID is an on-going, national, stratified, longitudinal sample of 5,000 families and the new households that they generate over the years. By the 1984 interviewing year, there were 6,918 households in the sample. Panel respondents are asked annually to report a wide variety of detailed information concerning their labor force participation, employment and unemployment status, hours on and off the job, and sources and amounts of income, including earnings and transfers from public programs. The PSID provides especially rich information on the changing economic circumstances of employed women and men over time.

The PSID is particularly well-suited for this study because in the 1984 interview year respondents were asked the following question about parental leave, "Would you/she get any leave (besides regular vacation time) from your (her) main job, if you (she) had a baby?" While, this is not an ideal question about parental leave (since it does not distinguish among parental leave, maternity leave, sick leave, or disability leave), the PSID is, nevertheless, the only current, nationally representative panel survey to ask this type of question.

Unfortunately, no question was asked about leave either for serious illness of oneself or a family member or for eldercare. Our estimates of the costs of illness and of caring for elders are based on proxies and data from other sources. A second problem with the PSID is that, because the panel was selected in 1968, it has not kept pace with changing demographic patterns. Because the survey oversampled for the low-income population at its inception, it does have adequate representation of blacks (all findings reported here are weighted to compensate for this oversampling). But changes in national demographic patterns since 1968 are not well-reflected, and Hispanics and Asian Americans are underrepresented. Consequently, while we were able to analyze black-white differences, we were not able to analyze Hispanic and Asian Americans separately. A third problem of the PSID, from our perspective, is that all information is obtained from a single household member, usually the 'head,' during a telephone interview. This means that in husband-wife households, husbands (or wives) report information on their spouses' wages, hours of work, benefits, and so forth. This method of information gathering may limit the reliability of the findings.

Research Design

The null hypothesis of this study is that there are no measurable costs for those workers who have babies or who get ill compared to those who do not. To test the null hypothesis we use a quasi-experimental research design in which we compare a group of workers (Group A) who experienced event X (i.e., having a baby, having a baby with no parental leave, and missing work due to illness) with a matched group of workers (Group B) who did not experience event X, both before and after the event on the basis of a variety of outcomes. Schematically the design looks as follows:

A (at time 1)→	X (event)→	A (at time 2)
B (at time 1)→	no X→	B (at time 2)

If there are no significant differences between Group A and Group B at time 1 (or, alternatively, these differences are taken into account) and there are significant differences between Group A and Group B at time 2, in the absence of a rival hypothesis, we reject the null hypothesis and attribute the changes to X. In fact, we look at the matched groups at four points in time: in year t-1, the year before the event; year t, the year of the event; year t+1, the year after the event; and year t+2, the second year after the event.

Quasi-experimental designs attempt to use the logic of experimentation in situations where the researcher cannot randomly assign individuals to groups and cannot control the administration of the 'treatment.' Clearly both of these conditions obtained in this research. We could not, for example, control which women workers received some form of parental leave and which did not, nor could we control for whether a given worker would be seriously ill and off the job. Instead we had to rely on 'naturally occuring situations,' such as childbirth or the illness of workers, to provide data.

According to James A Caporaso and Leslie L. Ross, Jr. in *Quasi-Experimental Approaches: Testing Theory and Evaluating Policy* (Evanston, Illinois: Northwestern University Press, 1973), the logic of quasi-experimental design includes three basic components. These are:

(1) Observation of some interpretable variation in some independent variable large enough to produce a shift in a dependent variable. In this study the independent or 'treatment' variables are of four sorts: giving birth to or adopting a child; giving birth to or adopting a child but not having some form of parental leave; becoming ill and taking hours off from work; and becoming ill, taking time off from work, and experiencing unemployment. The changes

in the dependent variables (or effects caused by the independent variables) are the 'costs' or economic outcomes. In the absence of a rival hypothesis, these are attributed to the event (these outcomes are described in detail in 'Measures of Costs' below).

(2) Secondly, these effects must go beyond what we would expect on the basis of chance. To examine this issue, we used tests of statistical significance to test the difference in means in the outcomes between Groups A and Groups B.

(3) Finally, plausible rival hypotheses must be examined. We attempted to control for these rival hypotheses by 'netting out' whatever pre-event differences existed between Groups A and B.

For all groups, the event of 'birth' refers to childbirth or adoption. It should be noted that, with the exception of the 'Leave' and 'No Leave' groups and the 'Returned to Work' and 'Continuously Employed' groups, the members of neither Group A nor Group B had to be employed in any but the first year (year t-1) of their inclusion in the study.

The groups we compared were as follows:

GROUP A

***Female Birth* (Black and White)**
Female heads or wives under age 41 in the birth year who had a birth in 1979, 80, 81 or 82 but no birth in the previous year or in the two succeeding years and who worked at least 600 hours in the year previous to having the child.

***Male Birth* (Black and White)**
Male heads whose wives were under age 41 in the birth year and had a birth in 1979, 80, 81, or 82 but no birth in the previous year or in the two succeeding years and who worked at least 600 hours in the year previous to their wives' having a birth.

***Female Birth Who Returned to Work* (Black and White)**
Female heads or wives under age 41 in the birth year who had a birth in 1979, 80, 81 or 82 but no birth in the previous year or in the two succeeding years, who worked at least 600 hours in the year previous to having the child and who returned to work by 1983.

Female Leave
Female heads or wives under age 41 in the birth year who had a birth in 1979, 80, 81 or 82 but no birth in the previous year or in the two succeeding years, who worked at least 600 hours in the year previous to having a birth, who had some form of parental leave beyond vacation time, and who returned to work by 1983.

***Female Ill* (Black and white)**
Female heads or wives under age 55 in the illness year, but not retired, who were off the job due to their own or someone else's illness for more than 50 hours in 1979, 80, 81, or 82 but not in the previous year or the two succeeding years and who worked at least 600 hours the year previous to the illness.

***Male Ill* (Black and white)**
Male heads under age 55 in the illness year, but not retired, who were off the job due to their own or someone else's illness for more than 50 hours in 1979, 80, 81 or 82 but not in the previous year or the two succeeding years and who worked at least 600 hours in the year previous to the illness.

GROUP B

***Female No Birth* (Black and White)**
Female heads or wives under age 41 in 1984 who had no birth during a four year period between 1978 and 1983 and who worked at least 600 hours during the first of four 'no birth' years.

***Male No Birth* (Black and White)**
Male heads whose wives were under age 41 in year t and who had no birth during a four year period between 1978 and 1984 and who worked at least 600 hours during the first of their wives' four 'no birth' years.

***Female No Birth who were Continuously Employed* (Black and White)**
Female heads or wives under age 41 in year t who had no birth during a four-year period between 1978 and 1983, who worked at least 600 hours in all four 'no birth' years.

Female No Leave
Female heads or wives under age 41 in the birth year who had a birth in 1979, 80, 81 or 82 but no birth in the previous year or in the two succeeding years, who worked at least 600 hours in the year previous to having a birth, who did not have any form of parental leave beyond vacation time, and who returned to work by 1983.

***Female Not Ill* (Black and white)**
Female heads or wives under age 55 in year t, but not retired, who were not off the job due to their own or someone else's illness for more than 50 hours in any year during a four year period between 1978 and 1983 and who worked at least 600 hours in the first of the four 'not ill' years.

***Male Not Ill* (Black and white)**
Male heads under age 55 in year t, but not retired, who were not off the job due to their own or someone else's illness for more than 50 hours in any year during a four year period between 1978 and 1983 and who worked at least 600 hours in the first of the four 'not ill' years.

Selecting the Research Cases

The sample used for selecting all the matched groups in the study spanned the PSID interviewing years of 1979-84, which provide information on calendar years 1978-83. To increase the number of cases available for the study, a pooled analysis strategy was used whereby individuals could contribute more than one case to the study. This strategy was suggested by Michael Ponza of the Survey Research Center at the Institute for Social Research, the University of Michigan; he and Tecla Loup, also of the Survey Research Center, were responsible for creating the data files and programming the statistical analysis. Group selection occurred as follows:

Birth versus No Birth groups

To determine whether a birth occurred between year t and t+1, the following variables were used: age of youngest child (years t, t+1 and in some cases t+2), family composition change (year t+1), relationship to head of household of individuals 'moving' into the family (t+1) and current family composition (year t). It is necessary to use the age of youngest child in year t+2 in the case where a child under two years old in year t is already living in the family. A 'birth' is determined to have occurred if the age of the youngest child is 2-17 (or there are no children), if in year t there is no child under two years of age in the household, if in year t+1 the age of the youngest child is 1, and if some other family composition requirements are satisfied.

Three separate four-year spans and another which included only three years (1982-1984) were scanned to determine whether the individual head or wife belongs to a family with a birth (no birth/birth/no birth/birth or no birth) or a family with no birth (no birth/no birth/no birth/no birth) for the years t-1, t, t+1, and t+2. Any other pattern for the four years was rejected and the next four year span was then scanned until the maximum of four spans was checked. Note that the fourth year of the four-year span can be either a birth or no birth for those in the birth group. Both cases would fall into the birth group, but their data for year t+2 were recoded as missing data in all instances where another birth occurred in the t+2 (final) year. For example, suppose the six year binary string is no birth/birth/no birth/no birth/no birth/no birth. This individual is in the first scan as a birth, is not included in the second scan, is included in the third scan as a no birth and included in the fourth scan as a no birth. In all, this individual contributed 3 cases or observations to the pooled analysis. At this point the appropriate sub-groups of the cases were determined (e.g. female head or wife, male head, black or white), and the sample was reweighted appropriately (see "Weighting the Sample" below).

Returned to Work versus Continuously Employed groups

The 'returned to work' and 'continuously employed' groups are subgroups of the female 'birth' and 'no birth' groups, respectively. They meet the criteria of the larger groups (described above) along with a number of additional criteria. In addition to the four-year birth/no birth pattern and the 600 hour employment requirement in the pre-birth year, the 'returned to work' group must have returned to paid employment by 1983. The 'continuously employed' group must meet the four-year no birth pattern and the 600 hour employment requirement in the first year, and in addition must have 600 hours of employment in the remaining three years of their inclusion in the study.

Leave versus No Leave groups

Because of the availability of the question on leave for childbirth in the 1984 interviewing year, we are also able to compare the groups of women who had (or adopted) babies in year t and who reported

that they *had* some form of leave with those who had or adopted babies but reported having no such leave. We assumed that if the leave was available in 1983 (the 1984 interview year) it was available in the year of the birth or adoption. Likewise, if leave was *not* available in the 1984 interviewing year, we assumed it was not available in the birth year. In order to respond to this question, group members had to be employed in 1983 (unlike members of the large birth group who had to be employed only in the pre-birth year). In all other respects, they are selected in the same fashion as the birth cohorts described above.

Ill versus Not Ill groups

To determine whether a worker was off the job for more than 50 hours as a result of illness in year t, the variables showing the number of weeks lost from work due to own sickness or the sickness of others in the family were examined. These weeks were converted to hours; if the hours were greater than or equal to 50, an absence was considered to have occurred. Otherwise, the worker was assigned to the 'not ill' category. Three separate four-year spans, with another which included only three years (1982-84), were scanned to determine whether the head or wife had an illness-related absence (no absence/absence/no absence/absence or no absence), or did not have an absence (no absence/no absence/no absence/no absence) for the years t-1, t, t+1, and t+2. Any other pattern for the four years was rejected and the next four-year span was examined for that individual, and so on, until the maximum of four spans was searched. Note that the fourth year of the four-year span could be either an absence or no absence for those in the 'ill' group. While all these workers are included in the illness group, their data for year t+2 are recoded as missing data in all instances if another illness-related absence occurred in the t+2 (final) year.

Weighting the Sample

Two adjustments were made to the sample in order to get unbiased estimates of means. The PSID oversamples low-income households, so that the PSID family weight variable must be used to obtain representative estimates of the U.S. population. Since each observation encompassed four interview years, and not simply one year or some other fixed interval, and since an individual had to be a head or wife for four consecutive years (i.e., t-1, t, t+1, and t+2) as well as satisfy other conditions to be included, the PSID family weight for the last year (t+2) was used in each span to adjust for oversampling and nonresponse.

The second adjustment was necessary because individuals differed in the number of cases that they contributed to the analyses; not controlling for this fact would bias estimates. For example, a wife with the pattern no birth/birth/no birth/no birth/no birth contributes three cases: one to the female birth group and two to the female no-birth group. The adjustment involved weighting everyone so that they contributed exactly four observations to the study. Each case received a weight equal to the maximum number of times a case could appear divided by the actual number of times that she/he did appear, or, in the situation just described, 4/3 = 1.33.

Thus, the final weight received by each case is the product of the PSID family weight and this second weight controlling for the number of instances. This procedure was used on the advice of Steve Heeringa of the University of Michigan Survey Research Center's sample section. Finally, the sample selection peculiarities of this pooled analysis (combined with the fact that the PSID is a stratified, clustered sample) meant that the standard errors had to be adjusted for design and sampling effects. This was done, and we obtained proper standard errors for significance tests for differences in means between the groups and subgroups for each variable at times t-1, t, t+1, and t+2.

Measures of Costs

The measures of the costs to workers, taxpayers, and society of parenting and of illness are based on differences in outcomes between the groups and subgroups. We initially examined a wide variety of indicators to measure these costs. As we proceeded with the analyses, we limited the examination to those we considered to be the best proxies of economic costs. For consistency, all dollar figures were converted to 1986 dollars using the CPI. The measures include:

Annual Work Hours
Annual work hours for the year prior to the interview year.

Annual Housework Hours
Weekly hours of housework at the time of the interview, not during the previous year, and has been annualized.

Annual Unemployment Hours
Annual unemployment hours for the year prior to the interview year, based on 40-hour weeks.

Out of Labor Force Hours
Annual hours out of the labor force for the year prior to the interview year, based on 40-hour weeks. This variable is unambiguous for the 1983-84 interviewing year; for prior years it was calculated as a residual after accounting for work weeks, unemployment weeks, strike weeks, vacation weeks, and sick weeks, and then converted to annual hours.

Transfer Income
Dollar value of food stamps, AFDC/ADC, unemployment insurance, other welfare income and SSI for the prior year.

Hourly Wage
Hourly wage rate calculated from total labor income divided by annual work hours for the prior year.

Annual Labor Income (or Annual Earnings)
Total dollar value of income from labor for the year prior to the interview year.

In short, to determine the costs of parenting or of illness, we compared the difference in these indicators between groups at four points over the four year time span to see which group was better off. If, for example, the differences showed that women who had a baby were significantly worse off during the years following the birth, but not in the year prior to the birth, the differences were interpreted as the costs to the women of having (or adopting) a baby. The net difference between these women and the women who did not have babies was interpreted as the net relative cost of having a baby. When we discuss the costs of having a baby in this report, therefore, we are not referring to the costs to hospitals or to the medical profession. Rather, we are measuring the costs in economic losses to workers and the financial costs of additional transfer payments to taxpayers. These are the 'unnecessary losses' documented in this report.

Generalizing Costs to the U.S. Population

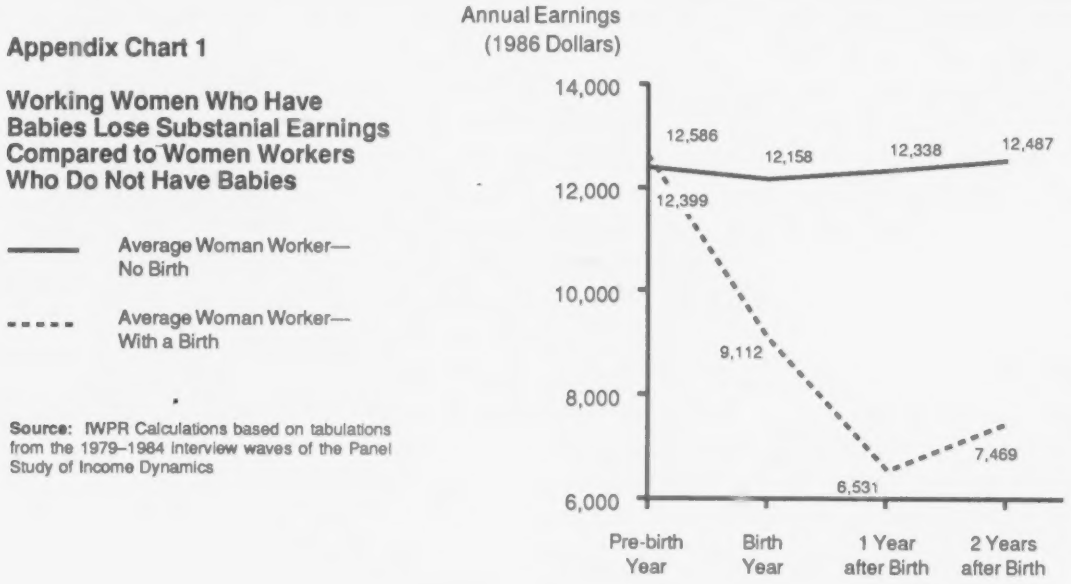
A number of the most important costs to workers and to taxpayers of necessary and unavoidable life-cycle activities, such as having babies and becoming ill, generated from the PSID data are generalized to the relevant U.S. population using the following procedures.

Estimated earnings losses to employed women who gave birth or adopted babies

In order to obtain this estimate we calculated the *difference* in annual earnings in the birth and two post-birth years (t, t+1, t+2) between the 'birth' group of women (as defined by the PSID selection procedures discussed above) and the 'no birth' group, minus the difference in their earnings in the year prior to birth (t-1). The annual earnings for these two groups are shown in Appendix Chart 1

Appendix Chart 1

Working Women Who Have Babies Lose Substanial Earnings Compared to Women Workers Who Do Not Have Babies



Source: IWPR Calculations based on tabulations from the 1979–1984 interview waves of the Panel Study of Income Dynamics

(subtracting the pre-birth year difference is equivalent to equating initial annual earnings, or giving the two lines on the chart—representing annual earnings for the birth and no birth groups—the same starting point).

To generalize to the U.S. population, we then multiplied this 'net' earnings difference ($14,429 in losses for the birth group) by an estimate of the number of employed women in the U.S. who gave birth in 1985. According to data from the U.S. Department of Commerce, Bureau of Census, *Fertility of American Women: June, 1985*, Table 4, there were 1.4 million such women. Because this figure included only women who had given birth and returned to jobs, but our sample of employed women who gave birth includes those who did not return to work, we adjusted this number by using the U.S. General Accounting Office estimate that 65 percent of working women who have babies returned to the labor force; 1.4 million is 65 percent of 2.145 million. We used this latter figure as the estimate of employed women who gave birth. The result of the multiplication of the net earnings losses by the number of employed women who gave birth was $30,951,000,000 in total earnings losses.

Estimated financial cost to tax-payers of transfer payments to employed women who gave birth or adopted babies

To obtain this estimate, we calculated the *difference* in total transfer payments (using the outcome variable total transfer payments in the birth and post-birth years, t, t+1, t+2) between the birth and no birth groups of women, minus the difference in the pre-birth year (t-1). Using this method, we calculated the additional transfer costs per woman who gave birth or adopted a baby to be $581. To generalize these taxpayer costs to the U.S. population of employed women who give birth, we multiplied the $581 figure by the estimated 2.145 million women who gave birth in 1985, resulting in an estimated $1,246,000,000 in taxpayer costs.

Estimated earnings losses to employed women who gave birth or adopted babies and returned to work

In order to obtain this estimate we calculated the *difference* in annual earnings in the birth and two post-birth years (t, t+1, t+2) between the return to work group and the continuously employed group,

minus the difference in their earnings in the year prior to birth (t-1). The earnings differences for these two groups are shown in Chart 5, part 2 (See p. 24 above) (our method is equivalent to giving the two lines representing the return to work and continuously employed groups the same starting point). In order to generalize to the U.S. population, we then multiplied this net earnings difference ($8,460 in losses to the return to work group) by the estimated 1.524 million women who gave birth and returned to work within two calendar years after the birth of a child, resulting in $12,893,000,000 total earnings losses. The estimate of the number of women who gave birth and returned to work was based on an IWPR estimate that 71 percent of the estimated 2.145 million women who had births in 1985 did return to work by the end of the two-year time period after the year of birth.

Estimated additional losses (in earnings) of not having leave to employed women without some form of leave beyond vacation

In order to obtain this estimate, we assumed that employed women who reported in 1984 that they were entitled to some form of leave other than vacation upon the birth of a child were entitled to leave in the actual year of their child's birth. Likewise, we assumed that those employed women who reported in 1984 that they were not entitled to any such leave were without leave in the year of the child's birth. These assumptions probably overestimate the proportion of women covered by some form of leave, because leave may be a benefit associated with promotions, moving to a better job, or a new benefit not in effect in earlier years. As a result of these assumptions, we probably *underestimate* the additional losses in earnings to women without leave.

Once we made these assumptions, the standard method was used. We calculated the *difference* in annual earnings in the birth and two post-birth years (t, t+1, t+2) between the no leave and the leave groups, minus the difference in annual earnings between these two groups in the pre-birth year (t-1). The annual earnings for these two groups are shown in Chart 5, part 2 (p. 24). In order to generalize to the U.S. population. we then multiplied this net earnings difference ($1088 in losses to the women without leave) by an estimate of the number of employed women in the U.S. who gave birth but were not covered by some form of leave other than vacation time, resulting in $606,900,000 in earnings losses. The national estimate for the number not having leave was obtained by assuming that the experience of the PSID sample (26 percent of whom had no leave other than vacation) was generalizable to the estimated 2,145,000 employed women who gave birth in 1985, for a total of 557,700 employed women in 1985 who gave birth without having leave.

Estimated financial costs to taxpayers of not having maternity or parental leave for employed women who had babies

To obtain this estimate we again assumed that those without leave in 1984 were similarly with or without leave in the year of birth or adoption.

To measure the costs to taxpayers we used the outcome variable total transfer income (i.e., the dollar value of food stamps, Aid to Families with Dependent Children, unemployment insurance, food stamps, other welfare income and SSI). We calculated the *difference* in annual transfer payments in the birth and two post birth years (t, t+1, t+2) between the no leave and leave groups minus the pre-birth year (t-1) differences in transfer payments. In order to generalize to the U.S. population, this net difference of $192.98 was then multiplied by the estimated 557,700 women who gave birth in 1985 but did not have some form of leave beyond vacation time. The result, in additional transfer payments, in the birth and two post birth years was $107,600,000.

Estimated earnings losses to workers due to illness (workers under age 55 who were off the job for more than 50 hours)

To obtain this estimate we used a similar method of calculating earnings losses. This time, however, we combined losses for women with those for men in order to estimate losses for all workers. First, we calculated the *difference* in annual earnings in years t, t+1, and t+2 between those women who were ill for more than 50 hours and those who were ill for fewer than 50 hours, minus the pre-illness year (t-1) difference. We used the same procedure to calculate the losses for men. Using a weighted average to represent the numbers of employed women and men under age 55 (107,267 women and 149,000 men according to the weighted PSID sample), we calculated the total losses per ill worker. The result was $4,796 per ill worker.

In order to generalize to the U.S. population, we assumed that they had the same experience of illness as the women and men in the weighted PSID sample (26 percent of women and 16 percent of men were off the job for more than 50 hours due to their own or a family member's illness), or 20,875,643 workers under age 55 nationwide. Multiplying the estimated number of ill workers by the earnings loss per worker resulted in $100,119,000,000 in earnings losses due to illness.

Estimated earnings losses to ill workers of the lack of family and medical leave

In order to estimate the earnings losses to ill workers that result from the lack of family and medical leave policy, we first assumed that the net *additional* unemployment hours (defined, following the U.S. Department of Labor, as hours not employed at a job, but looking for work) experienced by workers with more than 50 hours off the job (due to their own or other family member's illness) compared to those with fewer than 50 hours could be attributed to the lack of leave. All workers, not just ill workers, experience unemployment due to a variety of causes, and workers who become seriously ill in year t may be more likely to experience unemployment in year t-1, but once we net out the difference in pre-illness year unemployment between the 'ill' and the 'not ill' groups, we think it is reasonable to attribute *additional* hours of unemployment experienced by the ill group *beyond* the hours experienced by the not ill group to job loss due to lack of leave for illness.

Once we obtained the additional hours of unemployment experienced by ill workers (13.8 hours for women and 90.9 hours for men) we then multiplied these additional hours by the hourly wage rate the workers received in year t-1 in 1986 dollars ($7.65 for women and $12.47 for men). Using a weighted average to represent the number of employed women and men under age 55, we calculated the total losses per ill worker due to additional unemployment. These losses amounted to $583 per worker. To generalize these losses to the U.S. population, we then multiplied by the estimated 20,875,643 U.S. workers who were off the job for more than 50 hours due to their own or another family member's illness. The result was $12,200,000,000 in additional losses.

Estimated financial costs to taxpayers of transfer payments to ill workers

To obtain this estimate, we calculated the *difference* in total transfer payments (using the outcome variable total transfer payments in the illness and post-illness years, t, t+1, and t+2) between those women under age 55 who were ill for more than 50 hours in year t and those who were ill for fewer than 50 hours minus the difference in the pre-illness year (t-1). We calculated the difference for men using the same procedure. Using a weighted average based on the PSID sample (discussed above), we calculated the additional transfer costs per ill worker to be $360. To generalize these taxpayers costs to the entire U.S. population under age 55 who were off the job for more than 50 hours, we assumed that the U.S. work-

ers had the same illness experience as the weighted PSID population (26 percent of women and 16 percent of men were off the job for 50 hours or more due to their own of other family member's illness), or 20,875,643 workers nationwide. Multiplying this estimated number of workers by the additional transfer payments per worker, we obtained $7,515,000,000 in taxpayer costs.

Estimated financial costs to taxpayers of unemployment insurance benefits to ill workers without family and medical leave

To obtain this estimate, we calculated the *difference*—in that part of annual transfer payments coming solely from unemployment insurance benefits—in the illness and two post-illness years (t, t+1, t+2) between the ill and the not ill women, minus the pre-illness year difference (t-1). The result was $220.43. We followed a similar procedure for male workers with a resulting $189.50. Using a weighted average to represent the numbers of employed men and women under age 55, we calculated the additional per worker unemployment insurance benefit paid to this group of ill workers. The result was $206 per worker. To generalize to the U.S. population, we multiplied this per worker loss by the estimated 20,875,643 U.S. workers under age 55 who were off the job for more than 50 hours due to their own or a family member's illness. The result was $4,300,000,000 in unemployment insurance benefit payments. We note here that employers are the taxpayers who bear the brunt of paying for unemployment insurance benefits, but general revenues are also used to support the insurance system.

For the reader's information, Appendix Tables 1 through 9 are included to show the differences in years t-1, t, t+1, and t+2 for a variety of indicators for most groups and subgroups studied.

Appendix Table 1

Costs of Having a Baby to Employed Women: Comparisons of Group A, Women Who Had a Baby to Group B, Women Who Did Not Have a Baby

	pre-birth year	birth year	birth year plus 1	birth year plus 2
Difference in annual earnings	$186.57	$-3044.98***	$-5806.87***	$-5012.77***
Difference in hourly wage rate	$0.26	0.40	-1.14**	-1.51***
Difference in annual hours of work	-21.90	-468.20***	-745.70***	-590.40***
Difference in annual unemployment hours	-16.40	-78.00***	-26.10**	-24.70*
Difference in annual hours out of labor force	37.20*	338.20***	523.10***	316.40***
Difference in annual housework hours	62.10*	237.20***	313.50***	345.90***
Difference in value of total transfer income	$-123.44**	$ -26.53	$119.03*	$119.08

Notes: All dollar figures are in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Births occurred in 1979 through 1982.

Appendix Table 2

Costs of Having a Baby to Employed Women by Race: Comparisons of Group A, Black Women with a Baby, to Group B, White Women with a Baby

	pre-birth year	birth year	birth year plus 1	birth year plus 2
Difference in annual earnings	$ -1624.70*	$-1811.70*	$ 2728.00**	$ 2319.90*
Difference in hourly wage rate	$-1.22**	$-1.83**	$-0.67	$ -0.01
Difference in annual hours of work	28.85	-92.64	411.11***	304.10**
Difference in annual unemployment hours	-12.29	32.05**	31.95	75.04*
Difference in annual hours out of labor force	-54.99	27.53	-417.69***	-312.55**

Notes: All dollar figures are in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Births occurred in 1979 through 1982.

Appendix Table 3

Costs of Having a Baby to Employed Men by Race: Comparisons of Group A, Black Men with a Baby, to Group B, White Men with a Baby

	pre-birth year	birth year	birth year plus 1	birth year plus 2
Difference in annual earnings	$-4983.00***	$-10,168.00***	$-7933.20***	$-8351.20***
Difference in hourly wage rate	$-1.63**	$-3.38***	$-2.75***	$-3.14***
Difference in annual hours of work	-156.48***	-319.27***	-269.86**	-316.00***
Difference in annual unemployment hours	13.38	69.67*	89.41*	157.69**
Difference in annual hours out of labor force	-9.47*	51.88*	-6.48	15.99

Notes: All dollar figures are in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Births occurred in 1979 through 1982.

Appendix Table 4

Costs of Having a Baby for Employed Women and Men: Comparisons of Group A, Women with a Baby, to Group B, Men with a Baby

	pre-birth year	birth year	birth year plus 1	birth year plus 2
Difference in annual earnings	$-12,289.10***	$-16,678.81***	$-19,504.78***	$-18,799.46***
Difference in hourly wage rate	$-3.89***	$-4.66***	$-5.95***	$-6.23***
Difference in annual hours of work	-590.50***	-1123.90***	-1396.50***	-1250.60***
Difference in annual unemployment hours	13.20	-75.60***	-39.00**	-7.10
Difference in annual hours out of labor force	141.10***	519.40***	702.50***	517.00***
Difference in annual housework hours	513.60***	712.10***	715.30***	628.20***
Difference in value of total transfer income	$65.78*	$196.53**	$250.37***	$288.59***

Notes: All dollar figures are in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Births occurred in 1979 through 1982.

Appendix Table 5

Effect of Current Maternity Policies on Employed Women Having a Baby: Comparisons of Group A, Women without Some Form of Leave Other than Vacation, to Group B, Women with Such Leave

	pre-birth year	birth year	birth year plus 1	birth year plus 2
Difference in annual earnings	$-5,251.58***	$-5,882.44***	$-5,469.29***	$-5,491.02***
Difference in hourly wage rate	$-2.65***	$-3.41***	$-2.90	$-2.82***
Difference in annual hours of work	-146.80**	-251.40***	-346.40***	-242.30**
Difference in annual unemployment hours	50.30*	37.70**	135.40**	82.00
Difference in annual hours out of labor force	194.20***	219.20**	278.60***	178.50***
Difference in annual housework hours	47.30	25.70	79.10	352.10**
Difference in value of total transfer income	$1.85	$-78.90	$239.33	$38.10

Notes: All dollar figures are in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Births occurred in 1979 through 1982.

Appendix Table 6

Costs of Illness to Employed Women: Comparisons of Group A , with More than 50 Hours Off the Job, to Group B, with Fewer than 50 Hours Off the Job

	pre-illness year	illness year	illness year plus 1	illness year plus 2
Difference in annual earnings	$-46.20	$-349.80	$-733.71*	$-1904.10***
Difference in hourly wage rate	$-0.26	$0.19	$-0.39	$-0.86***
Difference in annual hours of work	26.10	-105.60***	-40.50	-214.60***
Difference in annual unemployment hours	5.20	-33.70***	10.40	52.70*
Difference in annual hours out of labor force	9.10	3.10	36.50*	87.50**
Difference in annual housework hours	127.20***	-49.90*	10.30	229.10***
Difference in value of total transfer income	$-4.40	$16.50	$33.00	$182.60

Notes: All dollar figures are in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Illnesses occurred in 1979 through 1982.

Appendix Table 7

Costs of Illness to Employed Men: Comparisons of Group A , with More than 50 Hours Off the Job, to Group B, with Fewer than 50 Hours Off the Job

	pre-illness year	illness year	illness year plus 1	illness year plus 2
Difference in annual earnings	$-2599.30***	$-3566.20***	$-4362.60***	$-6153.40***
Difference in hourly wage rate	$-0.64*	$-0.37	$-1.30***	$-1.72***
Difference in annual hours of work	-101.20***	-222.50***	-170.20***	-302.70***
Difference in annual unemployment hours	4.10	-8.10	19.40	91.90***
Difference in annual hours out of labor force	3.80	-2.60**	76.60***	125.40***
Difference in annual housework hours	43.30***	1.50	36.30*	38.20**
Difference in value of total transfer income	$ 19.80	$34.10	$97.90	$381.70***

Notes: All dollar figures are in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Illnesses occurred in 1979 through 1982.

Appendix Table 8

Costs of Illness to Employed Women by Race: Comparisons of Group A, Black Women with More than 50 Hours Off the Job, to Group B, White Women with More than 50 Hours Off the Job

	pre-illness year	illness year	illness year plus 1	illness year plus 2
Difference in annual earnings	$ -1835.80**	$ -2164.90**	$-2473.90***	$-1520.30
Difference in hourly wage rate	$-1.20***	$-0.88*	$-1.07*	$-1.37**
Difference in annual hours of work	60.51	-142.00*	-148.13**	-75.77
Difference in annual unemployment hours	22.18	62.81**	175.06***	279.54**
Difference in annual hours out of labor force	13.04	36.53*	-84.29*	-200.79*

Notes: All dollar figures ar in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Illnesses occurred in 1979 through 1982.

Appendix Table 9

Costs of Illness to Employed Men by Race: Comparisons of Group A, Black Men with More than 50 Hours Off the Job, to Group B, White Men with More than 50 Hours Off the Job

	pre-illness year	illness year	illness year plus 1	illness year plus 2
Difference in annual earnings	$-9098.74***	$-10,255.60***	$-10,983.66***	$-12,282.60***
Difference in hourly wage rate	$-4.06***	$-3.72***	$-3.56***	$-5.43***
Difference in annual hours of work	-128.75**	-315.02***	-435.26***	-631.49***
Difference in annual unemployment hours	30.66	12.58	63.43*	36.44
Difference in annual hours out of labor force	-2.97	-1.44*	183.04*	420.06***

Notes: All dollar figures are in constant (1986) dollars.

*Significant at 0.10 level. **Significant at 0.05 level. ***Significant at 0.01 level.

Source: IWPR tabulations from the 1979 - 1984 interview waves of the Panel Study of Income Dynamics, Institute for Social Research, University of Michigan. Illnesses occurred in 1979 through 1982.

Appendix 2

Caregiving for the Dependent Elderly

Recent Studies

American Association of Retired Persons (AARP)
Caregivers in the Workplace, Survey Results, Overall Summary. February 1987
1909 K St., N.W.
Washington, D.C. 20049
Contact: Angela Heath, (202) 728-4479

Results of a survey of five companies conducted in 1986. The surveys were distributed to the entire employee population; non-caregivers were asked to complete 9 demographic questions and caregivers were asked to complete the entire survey. 4,850 survey questionnaires were distributed; 28% of the population returned the survey; 24% of the respondents indicated they were caregivers.

Characteristics of the Caregivers

Sex	%
Female	60
Male	39

Age	%
Under 30	12
30 - 40	33
41 - 50	33
51 - 60	19
61 and older	4

Job Category	%
Clerical/Support	24
Management	31
Production	7
Technical	20
Other	15

Characteristics of the Care Receivers

Sex	%
Female	75
Male	24

Age	%
50 - 60	8
61 - 70	22
71 - 80	39
81 - 90	25
90+	3

Frequency of Care

	%
Weekly	42
More than once a month	13

National Association of Area Agencies on Aging

Breadwinners and Caregivers: Exploratory Research into the Prevalence and Dimensions of Conflicts Between Work and Elder Caregiving Responsibilities. January 1987
600 Maryland Ave., S.W., Suite 208
Washington, D.C. 20024
Contact: Dan Hopkins, (202) 484-7520

Interviews were conducted with two groups of women caregivers: 1) 40 daughters or daughters-in-law of women care receivers who received help through a local service provider for the elderly, Elder Services of the Merrimack Valley; all of the daughters and daughters-in-law worked full-time; 2) 37 full-time women employees of Wang Laboratories who cared for an elderly family member. 68% of the women were hourly employees; 32% were salaried; they had on average 15-19 years of prior work history.

Characteristics of the Caregivers

Age
The mean age of the caregivers was 51.7 years.

Characteristics of the Care Receivers

Age
The mean age of the care receivers was 79.6 years.

Frequency of Care

	%
Daily	39
Several times/week	31
Twice/week	6
Once a week or less	25

The caregiver assisted the care receiver on the average with 7.9 tasks, spending 15.9 hours per week.

Work and Caregiving Conflicts

48% of the respondents were providing caregiving when they started working at their current job; 74% had more caregiving responsibilities since they started their current job.

35% of caregivers said caregiving had affected their work, citing time pressures (48%), worry (44%), and fatigue (8%).

77% said they experienced work and caregiving conflicts; 35% had made work adjustments.

31% of caregivers had missed out on overtime hours and 18% on meetings because of their caregiving duties.

In the prior year, caregivers had missed work 5.4 times to provide 35.3 hours of care for their elderly relatives.

31% of respondents considered changing their job while 21% considered quitting.

Options Used for Caregiving

	%
Leave work early	23
Take vacation leave	53
Change work schedule	18
Family help	14
Loan	4

Caregiving and Benefits

Benefits Used for Caregiving	%
Any/all benefits	67
Vacation time	60
Sick leave	34
Personal leave	11
Family illness days	9
Critical illness hours	91
Flexible hours	3

Benefits to Aid Caregiving (% Wanting Following Benefits)	%
Cafeteria style benefits	96
Respite care	93
Flextime	88
Adult day care	83
Reduced hours	83
Job sharing	70

National Center for Health Services Research

Caregiving of the Frail Elderly: A National Profile. 1987
5600 Fishers Lane, Park Building, Mail Stop 3-50
Rockville, MD 20857
(301) 443-4100

Data for this survey is from the Informal Caregivers Survey (ICS), a part of the 1982 National Long-Term Care Survey (LTCS), sponsored by the Department of Health and Human Services, and from follow-up interviews with caregivers (October of 1982 to January of 1983). 6,400 Medicare recipients identified as having long-term problems needing the assistance of a caregiver were interviewed, as were 1,924 of the caregivers (over 14 years of age) they had identified as helping them with daily living tasks.

From the sample it was determined that in 1982 approximately 2.2 million caregivers provided unpaid assistance to 1.2 million non-institutionalized elderly persons.

Characteristics of the Caregivers

Sex	%
Female	72
Male	28

Age	%
14 - 44	22
45 - 64	41
65 - 74	25
75+	10

Family Income	%
Poor/near poor	32
Low/middle income	57
High income	10

Proportion Employed by Sex and Age	%
Female (45 - 54)	50
Female (55 - 64)	33
Male (45 - 54)	66
Male (55 - 64)	46
Male (65+)	8

Characteristics of the Care Receivers

Sex	%
Female	60
Male	40

Age	%
65 - 74	43
75 - 84	36
85+	21

Frequency of Care

	%
1 - 3 days/week	14
4 - 6 days/week	6
7 days/week	80

Work and Caregiving Conflicts Among Employed Caregivers

	%
Worked fewer hours	21
Rearranged schedule	29
Took time off without pay	19

NIH/National Institute on Aging

Social Networks and the Care of Frail Elders.
February 1986
New England Research Institute
42 Pleasant St.
Watertown, MA 02172
Contact: Dr. Sharon Tennstedt, (617) 923-7747

A screening questionnaire was sent to 5,300 frail elders (aged 70 or older) selected at random from census lists of people residing in towns or cities in eastern Massachusetts. Since the study's emphasis was on caregiving networks, the sample of frail elders that received the Frail Elder Survey (n=635) were receiving community care. A second survey, the Caregiver Survey, was sent to people that the frail elders had identified as their primary caregivers (n=429).

Characteristics of the Caregivers

Sex	%
Female	70
Male	30

Age	%
50 or younger	24
51 - 60	28
61 - 70	20
70+	29

Employment Status	%
Unemployed	56
Full-time	33
Part-time	11

Characteristics of the Care Receivers

Sex	%
Female	76
Male	25

Age	%
70 - 74	19
75 - 79	27
80 - 84	29
85 - 89	16
90+	9

Levels of Care

	%
1 hour/day or less	24
1 - 3 hours/day	31
3 - 12 hours/day	17
12 hours/day or more	29

The Travelers Corporation

The Travelers Employee Caregiver Survey, A Survey on Caregiving Responsibilities of Travelers Employees for Older Americans. June 1985
One Tower Square
Hartford, CT 06183-1060
Contact: Rosanne Hennessey, (203) 277-9101

A Hartford, Connecticut-based insurance company with a "corporate commitment to focus energy, resources, and business leadership on the issue of aging in America," conducted an in-house survey of elderly caregiving responsibilities among a sample (20%) of its home office employees aged 30 or older. 1,412 employees received a form designed to identify caregivers for the elderly; 52%, or 739, responded with 28% of the group indicating they were caregivers to a person 55 years of age or older. 71% of the caregivers, or 136 people, completed a detailed survey.

Characteristics of the Caregivers

Sex	%
Female	57
Male	43

Age	%
30 - 40	31
41 - 55	52
Over 55	17

Characteristics of the Care Receivers

Sex	%
Female	69
Male	31

Age
The average age of the care receiver was 77.2 years.

Frequency of Care

	%
Daily	42
Few times a week	35
Once a week	16
Less than once a week	7

Levels of Care

Female caregivers provided 16.1 hours of care per week and male caregivers provided 5.3 hours.

Related Publications

Major Reports

Unnecessary Losses: The Costs to Workers in the States of the Lack of Family and Medical Leave, Roberta M. Spalter-Roth, Heidi Hartmann, and Sheila Gibbs (May 1989). All 50 states plus the District of Columbia.

150 pages. $25.00 Item #A103.

Also available by individual state.

9 pages. $5.00 Item #A104.

High Skill and Low Pay: The Economics of Child Care Work. Heidi Hartmann and Diana M. Pearce. Prepared for the Child Care Action Campaign (February 1989).

69 pages. $15.00 Item #G701.

Executive Summary available.

10 pages. $5.00 Item #G702.

Discussion Papers

"Science and Politics: The 'Dual Vision' of Feminist Policy Research, The Example of Family and Medical Leave," Roberta M. Spalter-Roth and Heidi Hartmann (September 1988).

45 pages. $10.00 Item #A106.

"A Comparison of Husbands and Wives Living Standards In and Out of Marriage," Roberta M. Spalter-Roth, in *Journal of Consumer Affairs* (1989).

5 pages. $4.00 Item #B201.

"Mothers, Children and Low-Wage Work: The Ability to Earn a Family Wage," Roberta M. Spalter-Roth, Heidi Hartmann and Linda Andrews. Paper presented at the 1989 Joint Statistical Meeting of the American Statistical Association, Washington, DC (August 1989).

8 pages. $4.00 Item #C-343.

Briefing Papers

"Briefing Paper #1 The Wage Gap: Women Have Made Slow, Steady Progress in the Labor Market Since 197[illegible] but the Wage Gap has not Narrowed Significantly," the National Committee on Pay Equity with the Institute for Women's Policy Research (April 1989).

7 pages. $3.00 Item #C301.

"The Economic Realities of Child Care," Heidi Hartmann. Testimony before the Subcommittee on Human Resources, Committee on Education and Labor, U.S. House of Representatives, Washington, D.C. (April 21, 1988), and "Supplementary Statement" (May 5, 1988).

14 pages. $5.00 Item #G703.

Conference Proceedings

Collection of papers presented at the First Annual Women's Policy Research Conference (May 19, 1989).

250 pages. $25.00 Item #H801.

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